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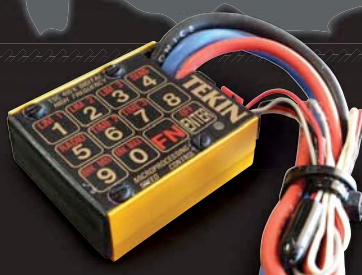
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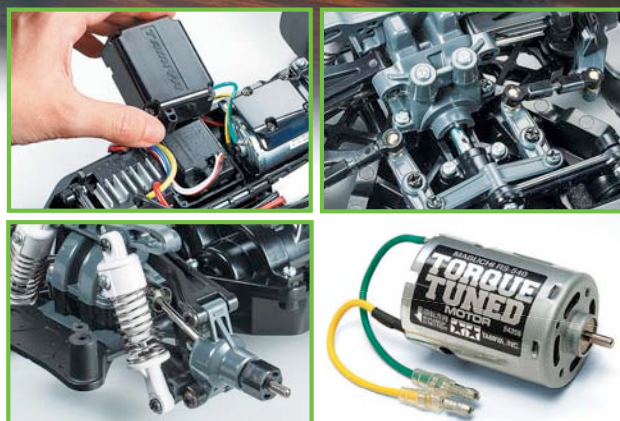
AT HOME ON-ROAD & OFF-ROAD!



TT-02T
CHASSIS



The body design of Tamiya's new 1:10 electric Sandshaker (58608) was inspired by modern day US racing trucks and features a polycarbonate body with a striking colour scheme of a white background, black graphics and bright green accents. Sandshaker's white/green rimmed, six-spoke wheels and block-tread pattern, large-diameter tyres give the truck a funky appearance that's equally at home on-road or off-road. The bathtub-type chassis is set high off the ground and is perfectly balanced with the battery on the left and RC gear on the right. The gearboxes are sealed to exclude dust and grit and are easy to maintain when needed. The fully independent double-wishbone suspension features identical left and right suspension arms and uprights for ease of assembly. A torque-tuned motor is included and battery packs such as Tamiya's LF3700 6.6V Racing Pack can be installed.



Specs and features:

- Scale: 1:10
- Assembly-type kit
- Bathtub chassis
- Four-wheel double wishbone suspension
- Front/rear friction dampers
- Shaft-driven 4WD
- Front/rear four-bevel resin differentials
- Plastic bushing bearings
- Torque-tuned 540-brush type motor
- Tyre width/diameter: 33/90mm (front & rear)
- Length: 426mm, width: 196mm, height: 188mm

- Wheelbase: 257mm
- Electronic speed controller sold separately

Special features:

- The newly-designed, Tamiya original polycarbonate body captures the form of a stadium truck.
- The TT-02T chassis inherits the ease of assembly and drivability of the TT-02 original.
- Sandshaker can be built with two types of wheelbase and ground clearance by simply re-assembling using parts included in the kit

Required to complete: 2 Channel Radio, Steering Servo, Battery Charger, paint for the bodyshell



For more information from Tamiya visit www.hobbyco.net or twitter.com/TamiyaUK

Tamiya, Inc. 3-7, Ondawara, Shizuoka-City, Japan
Distributed in the UK by The Hobby Company Ltd. Garforth
Place, Knowhill, Milton Keynes, MK5 8PG

40th ANNIVERSARY **TAMIYA R/C MODELS** 

Super Scooby

Carisma M40S Subaru WRX STi NBR

It's all in the detail with Carisma's latest M40S 1/10th on road model. The Subaru WRX STi NBR is a reproduction of the Subaru's entry into the legendary Nürburgring 24H Endurance Race. The Nürburgring course is a beast. 25 km per lap. 300 metres of elevation change. 170 precarious corners. It's the ultimate test of both driver and machinery.

Carisma's model features a highly detailed, fully licensed body shell with pre-applied sponsor details, wing mirrors, lights, wipers, grills, front splitter and rear diffuser. Underneath is Carisma's tried and trusted M40S 4wd shaft drive platform featuring oil filled shock absorbers, fully independent suspension, front and rear geared differentials and sealed pinion and drive gear.

A 2.4ghz radio comes as standard, along with electronic speed control, 540 size brushed motor and 7.2v re-chargeable battery. With a wall charger and 4 x AA batteries also included everything you need is included right inside the box.

When it comes to scale looks and value for money no manufacturer comes close to Carisma.

Carisma M40S Features:

- Shaft driven 4 wheel drive
- 4 wheel independent double wishbone suspension design
- Oil filled shock absorbers
- 2.4ghz Radio System
- Scale pre-painted and decaled bodyshell
- Brushed Electronic Speed Controller
- 7.2V rechargeable battery and wall charger
- 540 sized brushed motor
- Front and rear gear differentials
- Scale wheels and rubber tyres
- Front and rear geared differentials
- Foam front bumper
- Rear Bumper/diffuser
- Includes 4 x AA batteries for transmitter

Carisma M40S
Subaru WRX STi NBR
Part No: CA71468

Price: £129.99 RRP

M40S

SCALE 1:10 R/C 4WD CHASSIS

SCALE 1:10 RADIO CONTROL MODEL
2.4GHZ FHSS TECHNOLOGY SYSTEM



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A second win in consecutive rounds would see Schumacher's Elliott Harper take the top spot in the 2015 BRCA 1:10 TC National Championship and his first national title. The finale as usual was hosted by West London and four racers in attendance would be in contention for the hotly contested modified class.
- 74 Arise OJ, King of Kent**
Xray factory driver Ollie Jefferies went into the 2015-16 1:12 national series as the defending champion in both 10.5T stock and open modified, and he started in style with a lock-out of the P1 and taking 2 A final wins as West Kent's popular venue kicked off the championship.

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Joe Brown puts Team Associated's ESS-One sound generator to the test produced by Sense Innovations, as we added a range of scale noises to our Vatera Ascender.

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It may be a little touring car but BSR Racing's cute M.Rage is a great performer on the track. The sub-£65 chassis comes complete with a body and is based on a 210mm short wheelbase with 4WD that means it is easy to drive and ideal for those getting into the competition scene. Find out our thoughts on the Suzuki Swift-esque bodied from a club racer's point of view.
- 32 Xray T4'16**
How do you make what is considered one of the best touring cars on the market even better? Well as usual Xray has analysed the T4 platform and introduced a number of small detailed tweaks and incorporated them into the 2016 design as Stephen Coyle casts his experienced eye across the latest chassis.
- 56 Tamiya CC-01 VW Amarok**
Tamiya continue their long line of scale RC vehicles with the Volkswagen Amarok, this time on the CC-01 chassis. The CC element in the name stands for Cross Country so this is a true off-road platform with looks to match from the licensed VW pick-up body. Joe Brown offers his guidance on building and driving the latest CC-01 model.
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Crawling offers a great challenge to navigate a rocky section or get over a series of tree roots in the woods, and we think the new for 2016 Crawler King for HPI has what is necessary. The updated model not only looks great with its Ford SVT Raptor body with has the added benefit of 2.4GHz radio and waterproof components.
- 80 LRP S10 Blast TC 2 RTR**
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PLUS: Win a prize if your letter is selected as the best on p20-21

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JEFFERIES'S 1:12 DOMINATION CONTINUES

Another double at Crewe as Olly Jefferies dominance continues in 10.5T stock and open modified at the BRCA 1:12 Nationals, as Mark Jewitt takes 13.5T and Ollie Payne shows stunning pace in sports modified

The 2015-16 BRCA 1:12 National Series headed to Cheshire for round two of the season, and sadly this is the last time that the Crewe national will be held in the Oakley Centre before it is demolished.

In 10.5T stock Xray's Olly Jefferies once again had some competition looming in the background. Alexander Hagberg and David Spashett topped the time sheets in the first round of qualifying before Olly found the speed to take pole with the top three were covered by just over three and a half seconds. In the A final, the field passed through the majority of the first few corners cleanly. Whilst Olly continued out front, a battle ensued between Alex and David with the former making an error allowing David into second. And this is the order that would last until the end and as the buzzer went, Olly took the win by 0.336 seconds from David and Alex who were separated by 0.490 seconds.



Two more pole positions for the LRP-powered Xray



Olly led home David and Alex in modified on Sunday



Mark Jewitt dominated the 13.5T stock class

In 13.5T stock qualifying, Mark Jewitt took a large lead of 2.54 seconds over Peter Craig to take TQ. Gavin Clinch rounded out the top three. In the final Mark built up a strong lead with Ollie in pursuit. At the end of the eight minutes, Mark would take a flag to flag victory by 2.688 seconds from Ollie Payne who could not find the speed to catch the leader. Andy Sawyer took a very respectable third place finish from eighth on the grid.

Sunday dawned and in open modified the speed of the cars, especially Alex Hagberg's was hugely impressive. Olly Jefferies was pressured by Alex's straight-line speed all day, but this did not faze him and he stayed at the top of the timing sheets. David Spashett and Mark Stiles once again locked into third and fourth places on the grid. In the final Olly pulled his usual gap from Alex in the opening laps and then in an attempt to catch the leader Alex rolled his car allowing David into second. These two would battle it out for the remainder of the final, but it was to be Olly who



Ollie Payne took the sports modified win from Aiden and Tim

would take the win from David and Alex.

Tim Wood looked to be the early favourite in sport modified with Kellyann Bligh and Jason Butterfield also challenging. Despite Tim's early pace, Ollie Payne pulled a sensational run out in round four to take pole ahead of Tim and Kellyann. A battle for third saw three drivers in contention during the remaining minutes and whilst Ollie



The top three in 10.5T would be a precursor to Sunday's modified result

made his way through the back markers narrowly avoiding several incidents on the way, the last few laps saw a nose to tail battle between Aiden Ripley and Tim for second that ended with Aiden taking second by just 0.171 of a second. Ollie would take the win, a whole lap ahead of the field and a very well deserved victory.

Neo16 Announced for March 2016



NeoBuggy and DXR have officially announced that the 11th anniversary of the Neo Race will take place over the Easter weekend of 25-28 March 2016. The Agricultural University Harper Adams in Shropshire continues as the venue for the event that will take place over four days from Friday to Monday. The event's capacity has been slightly increased in size with the www.modeltune.com-sponsored E-buggy class making a return. This will be limited to 45 entries whilst the main nitro buggy class caters for 270 drivers.

Qualifying will be five-minute heats comprising of five rounds followed by bump-up finals for all drivers. The Neo Race's popular signature exhibition events return with a juniors final, oldies final, the Dash4Cash and Last Chance Qualifier.

The organisers hope to once again welcome some of the finest 1:8 buggy drivers to attend this prestigious annual event that is open to anyone to enter via www.RC411.net.

For further details on the event go to www.theneorace.com or contact info@theneorace.com

Option Packed Champions Edition

Team Associated announces B5M Champions Edition on the back of Spencer Rivkin's world championship victory



After success at the world championships, Team Associated has announced the RC10B5M Champions Edition that features the most popular tuning options available. By including parts for both three- and four-gear transmissions, flat and gullwing front wishbones, and V2 and VTS slipper clutches, this is the most tuneable car Team Associated has ever made. Strength, longevity and style have also been improved by including carefully selected Factory Team option parts like Fox shock bodies with genuine Kashima coating, titanium turnbuckles, blue shield ball bearings, aluminium front axles, and an aluminium rear ball stud mount.

This is a limited production model that is available now, and we will have a full thrash test in a forthcoming issue of the magazine.

#90002 Team Associated RC10B5M Champions Edition



WINGS 'N' WHEELS TO DISTRIBUTE BALLISTIC BUGGY

As of 1 January 2016, Wings 'n' Wheels will be distributing the Ballistic Buggy range of products. To coincide with this announcement, the brand is also releasing a 2WD cut rib that will be available in their white and green compounds. Ballistic Buggy has been one of the most popular choices of tyre in 1:10 off-road, with their pin and spike designs in their range that suit both indoor and outdoor applications, which come in four compounds – white, blue, green and pink. Other items to complement the tyres are their foam inserts in hard and soft compounds to use in 2WD and 4WD. If you require any further information then check out their website at www.ballisticbuggy.co.uk



TLR 22 3.0

Team Losi Racing announces the release of the third incarnation of the 22 2WD platform

The natural successor to TLR's 22 2.0 is this, the 3.0 that has been designed to give racers a versatile platform that easily adapts to changing track conditions without requiring a lot of tuning changes. One of the most notable changes is the three-gear transmission that sees the motor located 12mm closer to the diff gear than on the 2.0 to increase the rear weight bias, providing better rear grip on exit, more entry steering and a buggy that, overall, is easier to drive. The new three-gear transmission decreases chassis roll, greatly improving the vehicle's stability, consistency and braking.

The wider, 2.5mm aluminium chassis and moulded mudguards include the option to mount saddle and shorty LiPo packs across the chassis or fore to aft.

Many of the parts included with this kit are popular upgrades like the aluminium top shaft, adjustable rear pivot mounts, motor plate, rear camber block, shock bleeder caps and ball stud spacers throughout. Machined shock pistons and bushings, Ti-CN coated shock shafts and hinge pins, C3 spec hub bearings, low frequency springs and the heavy duty slipper system are also included. The 3.0 also features revised front and rear suspension geometry, Gen II 12mm big bore shocks, an updated ball differential and HDS slipper clutch.

TLR03006 TLR 22 3.0 £269.99

Check out our build online at ahead of a full review in the March 2016 issue on sale from 4 February.



SCHUMACHER RELEASE SE SPEC COUGAR KF2

After making the A finals at both the 2015 EFRA European and IFMAR World Championships, Schumacher has released an SE 'Special Edition' Spec of the Cougar KF2. After a great year of results the Cougar KF2 SE includes the option for all three motor positions, all in one box:

- Standard Forward Motor – Super high grip
- Low Grip Position – Medium grip (used at the IFMAR Worlds)
- Mid Motor Position – Medium and low grip (used at the EFRA Euros)

The kit includes a new alloy chassis, new body, three belts for all motor positions, front carbon fibre top deck and mount, and battery mounting hardware.

Schumacher has a dedicated page for the car at <http://goo.gl/LZ1Bjb> for more information and pricing.



TRAXXAS'S MASSIVE SELF-RIGHTING X-MAXX

The X-Maxx from Traxxas is an all-new, clean-sheet design culminating in a powerful 4x4 chassis that is a truly worthy successor to the Maxx legacy.

The X-Maxx is enormous with 8-inch tall tires, long wishbones and huge ground clearance. Wildly over-powered, the X-Maxx features a 22V dual-LiPo set-up and a Velineon 1600XL Big Block motor.



One of the most interesting features is the X-Maxx's ability to put it back on its wheels after a roll over. Simply press a button and in most cases this exclusive patent-pending Traxxas innovation flips X-Maxx back over onto its wheels so that you can quickly get back to having fun.

Racer hopes to get their hands on a sample very soon so watch this space.



2016 BRCA 1:10 OFF-ROAD DATES

As Racer went to press, the national championship dates were announced for the 1:10 off-road season. We have also included the European Championships that in 2016 are hosted by Spain at Valladolid.



British Winter Open Championships	6-7 Feb
BRCA National Round One	16-17 Apr
BRCA National Round Two	14-15 May
EFRA European Championships warm-up	27-29 May
BRCA National Round Three	11-12 Jun
EFRA Grand Prix	1-3 Jul
BRCA National Round Four	2-3 Jul
BRCA National Round Five	16-17 Jul
EFRA European Championships	25-30 Jul
BRCA National Round Six	13-14 Aug
BRCA Juniors/Veterans/F2s	20-21 Aug
BRCA F345s	10-11 Sept

Silverstone
Kidderminster
RHR (Astro)
Valladolid, Spain
Eden Park Raceway
Kamphenhout, Belgium
Boughton
Telford
Valladolid, Spain
TORCH
Bury Metro
Stotfold

Inside Line Racing to Distribute PR Racing

Kev Lee, owner of Inside Line Racing, has been in touch to tell us that they have been appointed exclusive UK distributors for the fast growing brand PR Racing.

The PR Racing PRS1 V3 is their very recently released three-gear laydown 2WD buggy, and it looks set to be a hit after some great performances already. The 4WD offering, the PRSB401 is very versatile being able to run a shorty or saddle LiPo set-up and has a whole



host of other great design features. PR Racing also offers short course and stadium trucks so they have most 1:10 off-road classes covered.

As well as distributing the range, Kev told us he is excited to be using the cars in the BRCA national series and many other races during 2016, and looks forward to some strong results.

IMPORTANT RACE DATES FOR 1:8 OFF-ROAD

Plan your weekends away for 2016 with the latest list of race dates for the 1:8 off-road racing classes. Below you will find all the important dates for 1:8 off-road nitro buggies, truggies and E-buggies.

20 Mar	BRCA 1:8 Off-Road Truggy/E-Buggy National	Deerdale
25-28 Mar	Neo16	Telford
9-10 Apr	BRCA 1:8 Off-Road National	Deerdale
16-17 Apr	EFRA European B Championship warm-up	Portugal
24 Mar	BRCA 1:8 Off-Road Truggy/E-Buggy National	Kent*
13-15 May	EFRA European Championship warm-up	Spain
21-22 May	BRCA 1:8 Off-Road National	Kent
25 Jun	BRCA 1:8 Off-Road Truggy/E-Buggy National	Herts
10-12 Jun	EFRA European B Championship	Portugal
25-26 Jun	BRCA 1:8 Off-Road National	Herts
5-10 Jul	EFRA European Championship	Spain
17 Jul	BRCA 1:8 Off-Road Truggy/E-Buggy National	Pembrey/Swansea
6-7 Aug	BRCA 1:8 Off-Road National	Pembrey/Swansea
14 Aug	BRCA 1:8 Off-Road Truggy/E-Buggy National	Slough
3-4 Sept	BRCA 1:8 Off-Road National	Slough
17-18 Sept	BRCA 1:8 Off-Road National reserve date	as required
23-25 Sept	EFRA European Championship Over 40s	Croatia
2-9 Oct	IFMAR World Championship	Las Vegas, USA



WIN TICKETS TO THE LONDON MODEL ENGINEERING EXHIBITION



Racer and the organisers of the London Model Engineering Exhibition are pleased to offer three family passes worth £30 each to this year's event taking place from 15-17 January 2016. Taking place at Alexandra Palace in London, the exhibition is one of the largest modelling shows in the country and features models of all sizes. Lot of the models are radio controlled and can be seen in action at the show. Always drawing a huge crowd is the team from Tamiya Truckin' who will again have a huge stand and feature all the latest trucks and vehicles they have in the club. It a fantastic family day out as there is many areas where the children can interact and 'have a go'.

To be in with a chance of winning a pair of tickets, all you have to do is send in a postcard with your full contact details to ADH Publishing on a

postcard. The first three entries drawn at random will win the tickets. Send your completed postcards to:

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WIN

The Inside Line on the PRS1 V3



Racer takes a quick look at PR Racing's new PRS1 V3 buggy being imported into the UK by Inside Line Racing

Kevin Lee's Inside Line Racing has been announced as the new UK agent for the PR Racing line of 1:10 off-road buggies. The PR Racing brand will be a new one to many of our readers, but the line has already established itself in the US under the distribution of Hobby Pro, with Andrew Smolnik driving the cars.

The PRS1 V3 is a 1:10-scale competition

electric 2WD buggy that features the very latest thinking with a laydown three-gear transmission. Based on the V2 design, it allows for greater adaptability and tuning options for the racer.

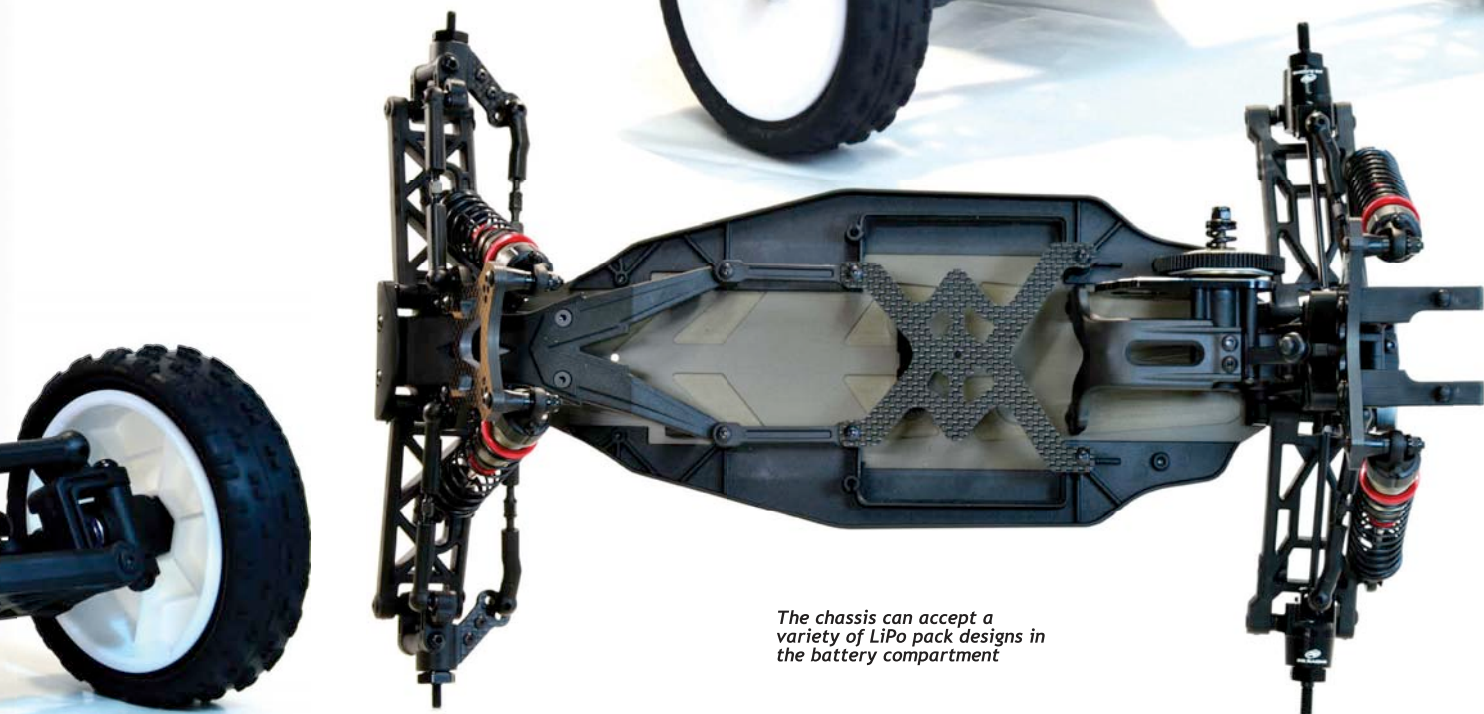
As mentioned earlier, the V3 will come with a three-gear mid-motor transmission situated in a laydown-style casing to keep the centre of

gravity as low as possible. Not only is the motor placement adjustable, but so is the battery position as it can be located both across the chassis and inline to suit different track styles and surfaces.

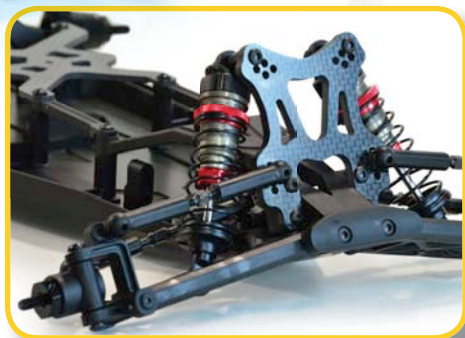
The kit will be available as you read this and will have an RRP of £249.99. ■



PR Racing is keen to point out the low centre of gravity design of their latest 2WD buggy



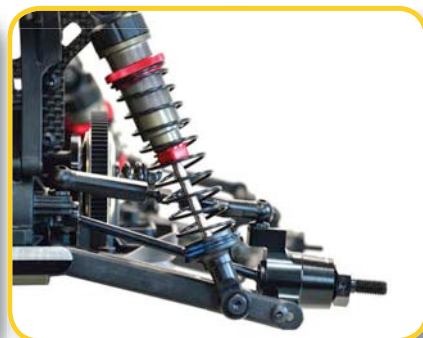
The chassis can accept a variety of LiPo pack designs in the battery compartment



Carbon fibre front shock tower



The 2WD adopts a twin-pad slipper set-up



Hinge pin secured by a button-head screw



The 13mm big bore oil shock bodies with red alloy seal caps and spring adjusters



Alloy 0-degree rear hubs are included as standard

CONTACT

Inside Line Racing

Tel: 0151 336 7315
E-mail: sales@insidelineracing.co.uk
Website: www.insidelineracing.co.uk
www.pr-rc.com



Vintage Monsters

This month's Iconic RC Vintage Column sees John Weston wax lyrical about those early monster trucks

Growing up in the 1980s, I was always completely smitten with the monster trucks that would often be seen on the TV, but mostly in magazines. Who remembers Bigfoot 3 in Police Academy 2? An epic moment. Bigfoot was the most well known of the trucks at the time with toy versions and posters in kids' bedrooms across the globe. We were spoilt for choice when RC manufacturers picked up on this popular genre and released a whole host of monsters to thrash around, replicating those great images from the USA. Bigfoot itself never saw a hobby grade RC replica, but Parma did release a 1:10 Lexan body shell. Over the years I never got bored of the monsters and I'm a huge Monster Jam fan. There are currently lots of RC monsters to choose from thanks to our favourite RC brands and they have a consistently established place in our hobby going all of the way back to those wonderful heady days 30 years ago. I think that, because of the success of our Revival monster truck races, the vintage monsters could be my favourite RC type. I'm incredibly drawn to them. The monster truck support race has been my personal favourite spectacle at both Revival 2015 and Revival 2014. They really do look and act like the real thing and the idea to have battered body shells littered around the track has been inspirational. In this month's column I'm looking at some of the vintage RC monsters that we could choose from back in

the day. I've focussed on the two main player manufacturers with the most monster choice - Kyosho and Tamiya.

KYOSHO VINTAGE MONSTERS

As ever, it is exceedingly difficult to find out solid information on release dates for vintage Kyosho on the Internet and the best source of information is vintage RC magazines like Radio Control Model Cars. Just so I don't trip up by supplying some misinformation I've targeted only the rather epic Car Crusher series of Kyosho monsters, which began in the 1980s. This outstanding line from Kyosho was up against Tamiya and perhaps lost out on overall sales but nevertheless these were awesome RCs.

Part Number	Model
3105	Big Brute
3106	Double Dare
3107	Hi-Rider Corvette
3108	The Boss
3110	Nitro Brute
3165	USA-1
3241	USA-1 Nitro Crusher

The 2WD Big Brute was Kyosho's debut car crusher and had a stunning Lexan body with ABS fittings in 1:10 scale and was up against Tamiya's



This is the Kyosho advert for their Big Brute

Blackfoot. The Double Dare, with a Lexan Nissan shell, boasted 4WD and four-wheel steering with twin motors and had Tamiya's Clod Buster to contend with. The Hi-Rider Corvette was a crazy concept which (in my opinion) oh so worked - a 2WD monster with a lovely Lexan Corvette C4 shell. The Boss was a Ford F250 body on the Big Brute chassis. Probably the most stunning of the range was the replica of Everett W Jasmer's Chevrolet USA-1, which was available in both electric and nitro. A breath-taking truck!



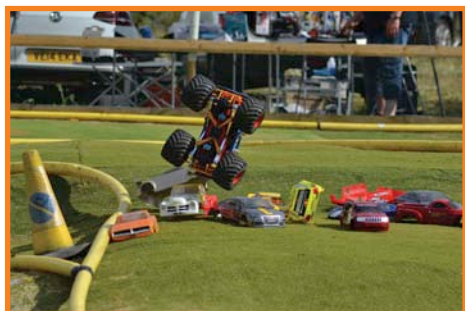
Manuals from Kyosho Car Crusher series. Big Brute

Double Dare 4WD

USA-1 Monster Truck

The Boss

Hi-Rider Corvette



Action from the monster truck race at the 2014 revival event



Tamiya's Monster Beetle was recently re-released in 2015



Lots of clearance on the Tamiya Clod Buster from 1987



Inspirational monster trucks from the 1980s

TAMIYA VINTAGE MONSTERS

The vintage Tamiya monster list needed some consideration as I pondered whether to include the Lunchbox and Pumpkin wheelie vehicles as they're really categorised as an RC wheelie rather than RC monster but when I looked at the Lunchbox box art and thought about the legendary Rollin Thunder full-size monster van, I just had to include them. I also had to think about the three-speed Bruiser and Mountaineer models. They weren't released with the intention of bashing around and taking perilous jumps with but they do look rather monster and if you saw one in full-size you would immediately say "monster truck" so they're on the list. Not on the list are the Nissan King Cab and Toyota Monster Racer, which were more stadium than monster, in my opinion (despite the name). The list would go on and on but this is a

vintage column and I thought the 1999 Juggernaut was a suitable place to stop. The Juggernaut was an absolute beaut and probably my favourite looking Tamiya monster, but they did drop the ball with that model having some seriously weak transmission, which the Shizuoka firm quickly released an upgrade for. The Jugg was shortly replaced by the Jugg 2 in the following year. As a result, the Jugg 1 is very collectible. What has struck me about this Tamiya list is the endurance of these Tamiya monsters. The Bruiser and Mountaineer are available again as re-releases as are the Lunchbox and Midnight Pumpkin. The Clod Buster lives on as the Super Clod Buster whilst the Bullhead has also been re-released. The Mud Blaster and Bush Devils have sequels on the WR-01 chassis and the Blackfoot lineage has been constant throughout with its fifth incarnation as the Blackfoot III. The Monster Beetle was re-released late last year so 12 from that original vintage list of 13 have presence at retailers today. Amazing.

Year	Part Number	Model
1985	58048	Toyota Bruiser
1986	58058	Blackfoot
1986	58060	Monster Beetle
1987	58063	Lunchbox Wheelie
1987	58065	Clod Buster
1987	58070	Midnight Pumpkin Wheelie
1989	58077	Mud Blaster
1990	58089	Bullhead
1992	58101	Bush Devil
1992	58110	Super Blackfoot
1992	58111	Toyota Mountaineer
1997	58192	King Blackfoot
1999	58232	Juggernaut

The real ground breakers for Tamiya were the 1986 Blackfoot and the 1987 Clod Buster. The 2WD Blackfoot, with quite a budget spec, featured the

body from the classic 1981 Ford Ranger SRB, but now in black with new mounting holes, tinted windows and a roll bar. The Ford F-150 shell still remains one of Tamiya's finest. Tamiya's inspiration for the Blackfoot would most certainly have been the extremely popular king of the full-size monster trucks at the time, Bigfoot. I clearly remember when the Blackfoot was released and desperately wanted one. Tamiya then released the stunning Monster Beetle, re-using the classic 1979 Sand Scorcher SRB shell. The Monster Beetle was a hopped up Blackfoot with spiked tyres and oil-filled shocks. The box art red body with gold plated wheels was a stunner and in a matter of months Tamiya had given us monster versions of two of the most iconic RCs that they'd released to date. At the time, Radio Control Model Cars magazine reported that the Subaru Brat, Lancia Rally and Opel Ascona bodies were being released for the Blackfoot chassis. I am certain that those body sets never actually came to fruition but the Subaru Brat shell did eventually get its own release as the Mud Blaster in 1989. The Blackfoot and Monster Beetle sold by the bucket loads and right while this was going on, the Lunchbox and Midnight Pumpkin were released as a different discipline (wheelie) on a more compact 1:12 scale. To really capitalise on the huge success of full-size monster trucks, Tamiya also released the Clod Buster. The Clod had a 1:10 ABS Chevrolet body mounted upon a twin motored 4x4 chassis with eight shocks and four huge wheels/tyres. An absolute beast with a huge box and another massive success for Tamiya.

While Kyosho and Tamiya were battling it out, other manufacturers' monsters are well worth a mention. The Traxxas Sledgehammer was first released in 1988 and enjoyed a healthy run and all vintage RC fans will know about the Marui Big Bear, which was a 1:12 Datsun monster truck released in 1984 with a gorgeous ABS body. The MRP High Roller is also a classic.

Tamiya Mud Blaster from 1989



The 1992 Tamiya Bush Devil

The original Tamiya Blackfoot from 1986

WHAT: ICONIC RC VINTAGE COLUMN



Tim Kemp's Kyosho Double Dare



This Kyosho Big Brute belongs to Iconic RC's Martin Bell



The Tamiya Bruiser of Andy Kelly



Mark Krajewski's Marui Big Bear



Dean Wright's Tamiya Midnight Pumpkin

SUMMARY

I love writing these columns. I begin with a reasonable amount of base knowledge and end with so much more thanks to the research needed to avoid any glaring mistakes. I have no doubt that I have missed out some classic monsters altogether but would like to think the popular ones have been covered. In writing this I've also rekindled the urge to own one or two of those classic Kyosho car crushers! Why am I always drawn to the big RC that takes up so much room in the house? With so many current RC monsters to choose from with Traxxas and HPI perhaps leading the way in technology and durability, let us not forget those classics that blazed the trail all of those years ago. Last month there was the review of the re-released Tamiya Monster Beetle keeping very true to the original, and it is fantastic to see the Clod Buster (in its Super Clod guise) and the Lunchbox and Pumpkin all still going strong. Lots to choose from! Thanks for reading. ■

ABOUT ME

Justin Noble and I founded Iconic RC in January 2011. Iconic is an RC reference website with a popular YouTube channel and a busy social media group on Facebook. We believe any RC is Iconic if the owner thinks it is but we've found that the main focus for our community has been vintage RC from the 70s, 80s and 90s.

ICONIC LINKS

Iconic RC:	www.IconicRC.com
YouTube:	www.youtube.com/IconicRC
Facebook:	www.facebook.com/groups/IconicRC
Revival 2015:	revival.a1racingclub.com/
Iconic Events:	www.facebook.com/groups/iconicrc/events/



Another one from Tim Kemp's Kyosho collection, his yellow Big Brute

4-LINK SUSPENSION SYSTEM

The 4-link suspension system has been designed to reduce torque twist and soften impact in mud, on rocks and in steep descents and ascents enabling delicate control and smooth movement.



G-TRANSITION ALUMINUM SHOCK ABSORBER

G-Transition shocks are internally sprung with oil filled damping. Continuing the Komodo theme of strength and durability, G-Transition shocks utilise a 3.5mm steel shock shaft surrounded by an aluminium shock body for a superb scale appearance.

The big bore, short stroke characteristics of the shock combined with oil damping offers smooth travel through hardcore off-road driving terrain.

Adjustable ride height and droop tailors the ride down steep descents and over gnarly rocks without fouling the mud guards in wonderful fluidity.



KOMODO

1/10th Scale Electric RC 4WD Vehicle



CML

CML PRODUCTS ARE AVAILABLE IN ALL GOOD MODEL & HOBBY SHOPS. CHECK OUR WEBSITE FOR FULL DETAILS
WWW.CMLDISTRIBUTION.CO.UK



CROSSWORDS

Get Checking

ANSWERS

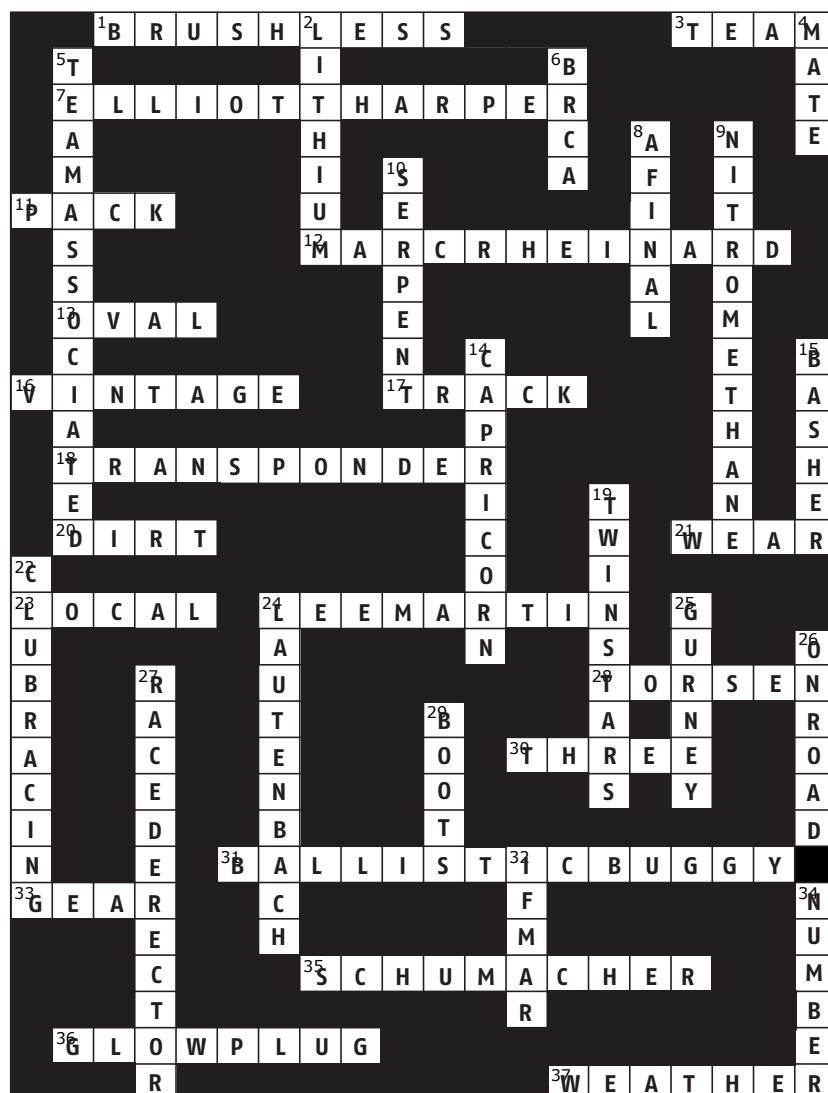
Across:

1. A type of electric motor - **brushless**
- 3 & 4 down. Like you, they race for the same sponsor - **team mate**
7. The latest national touring car champion - **Elliott Harper**
11. When discussing shock action, we refer to static damping and ____ - **pack**
12. Tamiya's most successful WC winning touring car driver - **Marc Rheinard**
13. RC racing where you only turn in one direction - **oval**
16. A race class for old models - **vintage**
17. Where you race - **track**
18. All racers must use one - **transponder**
20. RHR ____ hosted the EFRA 1:10 Off-Road Euros in 2015 - **Dirt**
21. A tyre suffers from this - **wear**
23. Talk to a ____ to get the best track knowledge - **local**
24. Home-grown European Championship winner in 2015 - **Lee Martin**
28. A type of gear diff - **Torsen**
30. This many hundreds of seconds in a five-minute qualifier - **three**
31. British off-road tyre brand from the South West - **Ballistic Buggy**
33. A 1:8 off-road nitro buggy has three ____ diffs - **gear**
35. Legendary chassis manufacturer from Northampton - **Schumacher**
36. If this pops your nitro-powered vehicle stops - **glow plug**
37. Choose your tyres depending on this - **weather**

Down:

2. The Li in LiPo - **Lithium**
4. See 3 across
5. The brand that holds 28 RC world championship titles - **Team Associated**
6. Our RC national association - **BRCA**
8. The last race to be run - **A final**
9. The percentage referred to when buying fuel - **nitromethane**
10. The racing snake - **Serpent**
14. A star sign and also an on-road chassis manufacturer - **Capricorn**
15. The name given to a recreational RC driver - **basher**
19. Tamiya's famous logo - **twin stars**
22. Where most start out - **club racing**
24. Jurgen, founder of LRP - **Lautenbach**
25. An element of a wing - **Gurney**
26. If it's not off-road, it is - **on-road**
27. The person in charge of a race meeting - **race director**
29. Kyosho's European Champion in 1:8 off-road - **Boots**
32. The RC world governing body - **IFMAR**
34. Your put one on the front windscreen - **number**

Last month we tested your RC knowledge with a crossword. To see how you did, check out the answers below...





BSR RACING

BZ-222

1:10 RACING BUGGY

KIT **ARR** **RTR**
VERSION VERSION VERSION

HITTING THE DIRT TRACK HAS

NEVER BEEN EASIER

WITH THE 1/10 Basher BSR
BZ-222 RACING BUGGY

FEATURES:

- 2WD WITH UNIQUE BELT DRIVE GEAR BOX
- CAN BE CONVERTED TO A MID-MOTOR CHASSIS LAYOUT
- ALUMINUM ADJUSTABLE SHOCKS
- FULL Y ADJUSTABLE CHASSIS FOR PRECISION SET-UP
- FULL BALL BEARING SUPPORTED DRIVE TRAIN
- PRE-GLUED HIGH PERFORMANCE BUGGY RACING TIRES
- ADJUSTABLE DUAL SIDE SLIPPER CLUTCH
- CVD DRIVE SHAFT

SPECIFICATION:

LENGTH: 395MM WIDTH: 251MM HEIGHT (WITH REAR WING): 128MM
WHEELBASE: 269MM GROUND CLEARANCE: 28.3MM
BATTERY COMPARTMENT: 138MM X 41.5MM X 25MM MAX SIZE

BSR RACING

The BZ-222 comes with all the parts you need to configure as mid or rear motor layouts depending on your preference or track conditions.



Brushless



2S LiPo (Required)



Gear Diff



Aluminum Chassis

BASHER

Available at hobbyking.com



Thanks to Fastrax and CML Distribution, every month we will be giving away a Fastrax prize to the best letter received. We have a range of prizes sitting here so don't forget to send in your comments to the address below:
Racer Magazine, Doolittle Mill, Doolittle Lane, Totternhoe, Bedfordshire, LU6 1QX.



editorial

Don't Let the Winter Win

Now that the clocks have gone back and the winter is upon us, we still have some three months of short days and have to wait until the end of March for the days to start getting longer. But there is always racing to be had somewhere if you look hard enough for it! Many clubs in the country continue to race outdoors throughout the winter, including off-road ones as they are fortunate enough to have surfaces that can handle the wet and slippery conditions, although there are a growing number of venues who are catering for indoor action for both on and off-road electric.

Some established racers will always feel that indoor racing is a specialist class and that it's a waste of time when it comes to preparation for a season of outdoor competition. I have to disagree though and would like to see these clubs embraced for what they do, be complimented on the investment that they have put into the venue and see the support from the racers. I will admit that sometimes the indoor tracks will be a little more compact with restricted layouts and imposing track markers, but when you can be guaranteed of a days racing in the dry when its freezing outside and the rain is being blown horizontally, the positives far outweigh the negatives.

Touring car racers compete indoors on carpet without it being considered specialist and then there is the micro scene that continues to grow and offer the opportunity to run in medium-sized halls, but still retain interesting and complex track layouts. Of course there is regular Mardave racing as this continues to be a backbone to the UK race scene as it caters for those on a budget who need a weekly fix of racing in a

competitive yet friendly arena. In recent years. The GT12 class has become more commonplace around the country offering a slightly more technical chassis that seems to sit nicely between Mardave racing and 1:12 or touring cars.

I do feel that the top racers and national competitors are in danger of losing an understanding of the club scene. The winter is a great time to get back in touch with the club racing side of things and to have fun whilst racing and not be bothered by national point scoring series or qualification for European events. The winter is also a great opportunity to perhaps try something else. There are plenty of nitro racers who turn to electric on- or off-road as a means of keeping their thumbs in during the winter – and most end up enjoying a class that they would otherwise never entertain. If you are a dedicated nitro racer, though, you do have it tough as indoor racing for this class is almost impossible to find – not only do you generally need a large space but also those fumes and smoke has to be drawn outside. There is of course the annual Neo Race at Telford, but then that takes place in a well-ventilated hall so you can't escape the cold over the Easter weekend!

Whatever you race though, come rain or shine, if you are a club official or racer, don't forget that we will happily publicise your club's or region's dates in the magazine. Spread the word and make yourself as welcoming to new racers and visitors as you can. And of course we can publish race reports after the event too. Dates, reports and any club news is gratefully received to me via e-mail at web@rcracer.com

MATT BENFIELD
EDITOR

WHO, WHAT, WHERE & WHEN?

THREE PICTURES FROM THE PAST:

Do you know who, what, when and where they are now?
Answers on page 98.



TOOL OF THE MONTH

This new touring car wheel arch cutting jig from Schumacher is a must for any TC owner. The jig ensures accurate and repeatable cutting out of wheel arches time after time. Simply set the ride height and position the body as desired. Position the jig flush with the outside of the body and locate the centre of the axle through the hole in the tool. Hold the jig and draw round the inside with a fine marker pen and then carefully cut to the line with a pair of curved scissors. The jig can also measure wing overhang with the handy 10mm step. The jig retails for £7.99 and is part number U4806.



STAR LETTER

WRITE A STAR LETTER AND WIN A PRIZE



FIRST RC FOR TEN-YEAR-OLD

I'm interested in buying my ten-year old son his first RC model vehicle. I don't really know much about RC models so would like something that is easy to set-up and run. There seems to be so much choice in my local model shop that all look fantastic, but which model is the best for us? I have a budget of around £200 and would like it to be strong, childproof and fun.

LOUIS SMITH

Via E-mail

Thank you for your email, there are lots of models on the market that fit your requirements. We can suggest a few starting with the fantastic HPI Crawler King featured in this issue. The Crawler King comes as a Ready-To-Run package so includes everything you need to get going, has great performance

and looks fabulous with its licenced Ford body shell. Rock crawlers are slower making them easier for the beginner to drive. Another great choice is the LRP S10 Twister short course truck, it falls within your budget and could also be raced should you son start to get the bug for competition. Our last pick is the smaller scale Vaterra 1:18 Slickrock Rock Crawler RTR. Being smaller it allows the Slickrock to be used indoors, which is great for this cold and wet time of year. Also well worth looking at are the ranges on offer from Arrma and FTX. These, like the LRP S10 line-up focus on the first-time buyer so are economically priced, but are well suited to the demands of someone getting into the hobby. All the models we have mentioned are easy to drive, perform well and would be great for your son. Whatever model you choose, we can guarantee you'll be having fun.

RACING ABROAD

Every year there is around ten of us that travel abroad to race 1:10 off-road. Last year we went to Belgium, but there are no dates released as yet. Can you advise of any race meetings abroad, maybe Spain? I look forward to your reply.

SCOTT FITZGERALD

Via E-mail

Great timing for your e-mail Scott as in this issue's news we have all the major race dates for the 2016 season. As you will see there is an international race this year in Belgium that takes place at the popular Kampenhout venue. Its official title is EFRA Grand Prix and this runs from Friday 1 to Sunday 3 July. Now on to Spain and the 2016 European Championships for the class are taking place



at Valladolid and whilst you would have had to qualify for the main event through the 2015 national championships, there is no reason that you cannot take part in the warm-up from 27-29 May. To make it easy to enter, you don't have to worry about an EFRA licence as although it is recognised by the European federation, it is completely under the control of the race

organisers. Also worth considering is attending a round of the Spanish national championships – something that the Schumacher factory team has been present at in recent years. In 2013 and 2014, Tom Cockerill took a couple of wins at the second round of their nationals at Bilbao, the track that hosted the 2009 European Championships. Hope this helps and allows you to plan for your overseas trip.

TIME WARP

FEBRUARY 2016

10 YEARS AGO — FEBRUARY 2005

It's only happened once before in all RC history – we were allocated a new frequency to control our models. After the first move to 40MHz in the mid-80s, 2.4GHz was



made legal for RC use, and with it the latest in high-response systems – and no crystals to worry about! This innovative system, pioneered by Spektrum of the USA, was jumped on by eager drivers, and looks set to be the future of all RC transmitters and receivers. The inaugural Neo Invitational race

was held in Antwerp, Belgium and won by American Jared Tebo driving an RB-powered Kyosho MP777 SP2. Paul Lemieux won the important Cleveland US Indoor Championship Race for his new team, Xray.

5 YEAR AGO — FEBRUARY 2016

Two-time National Champion, expert electric RC driver and all round good egg Keith Robertson joined CML Distribution's in-house sales and technical team to manage the CML-supported drivers. The short course truck scene was trending in



RC – there were loads of them hitting the shops. Traxxas's latest was the Slash 4x4 RTR and we rather liked it. Tamiya went back into the competitive 1:10 off-road electric class with their TRF201 and took on Lee Martin to drive. Lee repaid them immediately with a BRCA National win and an EFRA European Championship, so Racer decided to take one on a Thrash Test and we liked that too! The Pro-Line International Challenge was held at Slough and Darren Bloomfield just carried on winning with his Novarossi-powered Losi 8ight.

1 YEAR AGO — FEBRUARY 2016

We took the lid (well, body) off Darren Bloomfield's national-winning Schumacher Cougar KF and found some very interesting things underneath. Tom Cockerill wields the tools for the talented Mr B – a winning combination! Xray released



their 2015 1:10 off-road contender in the form of the XB4'15. Featuring adjustable battery locations and new chassis parts, the car will be popular.

Alexander Hagberg's progress continued when he won his first IFMAR WC, the 1:10 nitro version held in Bangkok, Thailand. On their indoor tarmac track, Alex overcame someone stepping on his car in the pitlane to take Xray's second IFMAR win in this class

SPEC: 4WD CARBON-REINFORCED FIBREGLASS CHASSIS CLASS: 1:10 ON-ROAD COST: £55.95

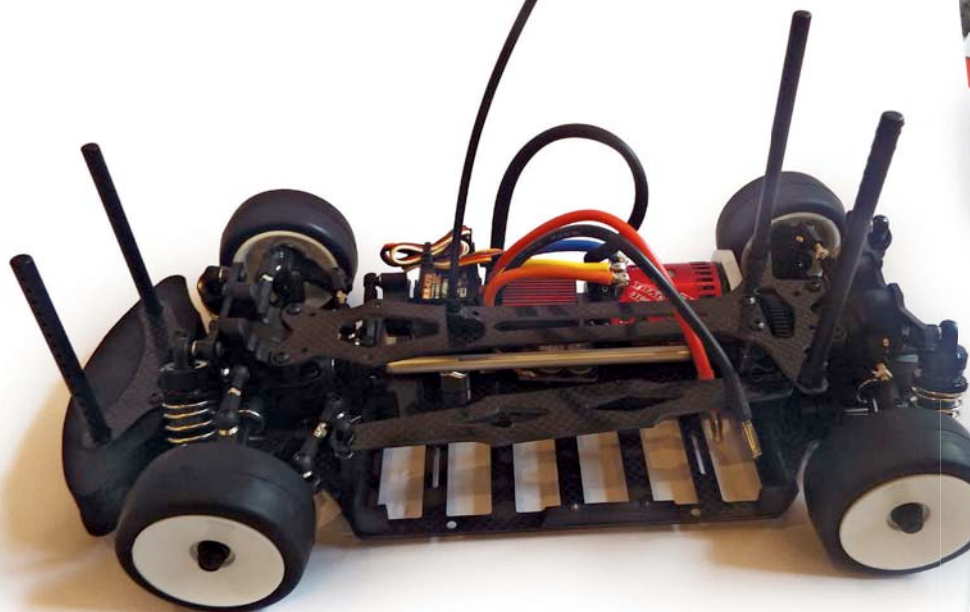


All The Rage



Shaun Taylor builds and races a very low priced 210mm wheelbase 4WD touring car from BSR Racing and creates a new class at his local club in the process. Read on to find out how this came about and his thoughts on the chassis

SPEC: 4WD CARBON-REINFORCED FIBREGLASS CHASSIS **CLASS:** 1:10 ON-ROAD **COST:** £55.95



A little box for a little car, but one with huge potential

Racer Tips

Pay close attention to the different screw sizes in the instructions as there are many sizes and not many spares left over once the build is complete. Some of the bags have mixed screw lengths in so during the build open all the bags and separate them. We used small plates and bowls to place the screws in so nothing gets lost.

The chassis top deck covered one of the terminals on our LiPo when fitted in the chassis so make sure you keep the terminals on the speed control neat and short.



Oil-filled shocks are bolted in place to the carbon-reinforced fiberglass shock tower



With the front gearbox cover removed you can see the ball diff

“Helped by the price and huge fun expect to see a class starting up somewhere near you!”



Trackstar GenII 120A speed control retails for around £50

The Basher brand operates under the ever growing Hobbyking banner and has, up until now concentrated on RTR off-road and on-road models. With their BSR Racing line comes this 1:10 on-road entry-level competition car, which is the first to be offered as an assembly kit for the budding racer.

Despite being promoted and labelled as an M-chassis kit, the BSR Racing M.Rage is actually more touring car based as it features a shaft-driven 4WD transmission unlike the front- or rear-wheel drive Tamiya versions. The M-chassis title refers to the 210mm wheelbase, which means most of the scale looking Tamiya M-chassis and other aftermarket bodies will fit.

ENTRY-LEVEL PRICE, RACE-LEVEL SPEC

Distributed by Hobbyking, the BSR Racing M.Rage has a very appealing price of only £55 although this does fluctuate slightly when you view the website so the guide price can vary from around £52 to £65, which

is still extremely good value, especially when you see what's included in the kit.

So what do you get in the box? The highlights of the all-important first glance were a carbon-reinforced fibreglass chassis, four aluminium-bodied shocks complete with threaded collars for adjustment, a thick alloy motor mount, four rubber tyres on dish wheels and a Suzuki Swift-esque body plus decals. With all of this, it's really hard to see how they can offer it at such an affordable price.

EASY BUILD

The build of the M.Rage is pretty simple. The instructions are not of Tamiya quality, but do provide lists of all parts and screws used and useful illustrations to help with assembly. The build commences with the carbon-reinforced fibreglass chassis and the fitment of the front and rear reinforced plastic wishbones that feature screws for chassis droop adjustment.

Next up are the front and rear ball differentials, which come pre-built ready for installing into

the gearbox casings. An exploded diagram in the instructions does show how they go together just in case they need a rebuild or adjustment.

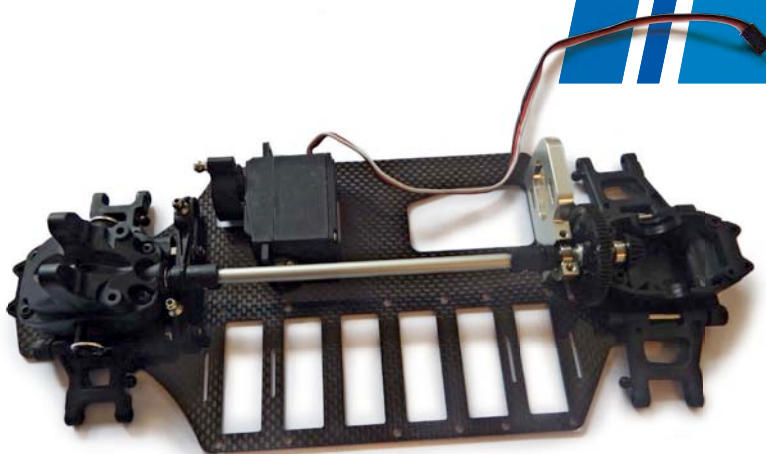
Fitment of the steering servo is early on into the build. We originally opted for a standard-sized Alturn unit for steering duties, but with limited space for the electronic speed control, we later swapped this for the low profile version. Polished alloy servo mounts securely hold the servo in position and a big plastic servo saver is also included in the kit.

The 4WD transmission is fitted in no time thanks to the pre-built diffs and includes bearings for optimum power and efficiency. Once the shaft-driven transmission build is complete, you then move onto the front and rear hubs, and top links which all feature turnbuckles so the complete wheel geometry can be altered.

The finishing touches to the chassis build are helped by some more factory assembled items, which this time are the oil-filled aluminium shocks. The black anodised bodies incorporate



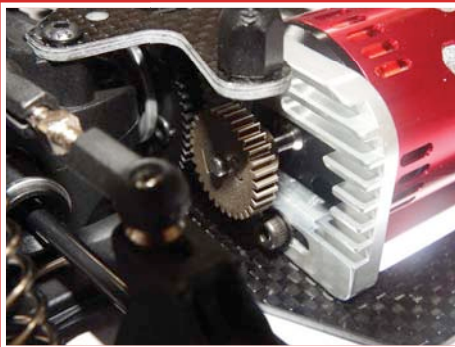
The chassis, top deck, towers and other parts are made from carbon-reinforced fibreglass



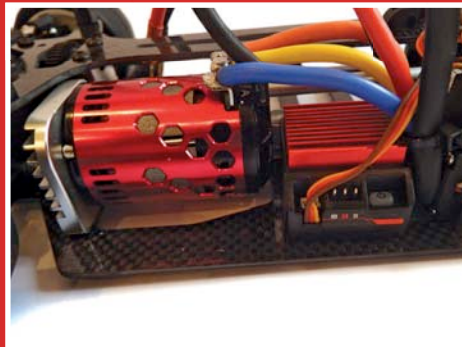
The M.Rage is a 4WD touring car that features a shaft-drive transmission



The 21.5T motor was plenty fast enough when powered by a 7.4V (2S) LiPo



A 37-tooth 48 pitch steel pinion is included in the M.Rage box



Hobbyking kindly supplied us with the kit and a complete Trackstar electrical package



Threaded bodies allow for easy ride height adjustment



Four alloy shocks come pre-assembled in the kit



72-tooth main spur gear



The front ball diff came pre-assembled

Trackstar 21.5T Stock Spec brushless motor



SPEC: 4WD CARBON-REINFORCED FIBREGLASS CHASSIS **CLASS:** 1:10 ON-ROAD **COST:** £55.95

ON TEST



Whilst writing a review of a car like this you always need somewhere to test it, and one problem with the BSR M.Rage is very few clubs run a class for them. It doesn't meet the dimensions to follow the current touring car rules and it would also be unfair to race it with the original Tamiya M-chassis cars as they are only 2WD via the front or rear wheels.

So we headed to the newly formed Chichester RC Circuit club on the south coast to have a play on their large carpeted indoor circuit. With no time for practice it was straight into round one and with surprisingly low grip

levels for the day thanks to moisture in the sports hall, we hoped that the kit set up wouldn't let us down. After just one lap were very impressed as the kit slick rubber tyres and soft suspension set-up gave us a very easy chassis to drive on the limit. We had lots of confidence to drive as fast as we could straight away and really gave the M.Rage a good thrashing round the circuit.

The 2S and 21.5T brushless combo was certainly fast enough through the twisty parts of the large track. Speed was maxed out on the long straight, but this was still enough to make the entry into the right hand sweeper interesting especially when taken on full throttle.

With a shorter wheelbase than a standard-sized touring car the rear of the M.Rage would slide about, particularly when a direction change occurred, but was still controllable in a way that reminded us of the handling characteristics of the original Tamiya M-chassis. Thanks to the 4WD transmission, we even managed some controlled drifts that impressed the spectators each heat.

The BSR Racing M.Rage is a fantastic chassis to drive on the limit, which it lets you do remarkably well. We didn't bother changing the set-up in anyway as the car was fast and fun to drive. We gave other members at Chichester a go and they were also able to get up to racing speed right away. This was all on out of the box kit settings from the pre-built shocks and differentials. The kit tyres provided enough grip to be fast round the corners and gave good amount of steering for the tighter sections.

With Turnigy Trackstar motor and speed control combo, the car was quick enough to be entertaining for the experience driver yet not too frightening for a newcomer to the hobby to be put off. There was lots of interest in the car from the other club members racing on the day and at time of writing there was talk of a heat of M.Rage cars being lined up for the next club race. Some of the Chichester regulars also race at Horsham RC club, also located in Sussex and they will also be running a heat of these cars all using the same spec motor and speed control that we used for this review.



We used this full-size Nano-Tech 6000mAh 7.4V LiPo



Note the hole in the wishbone for droop adjustment near the allow motor mount



The steering operates using this sliding bar system



The slick tyres require gluing to the white dish wheels



We installed this top of the range Sanwa RX-472



Neat finish to the carbon-reinforced fibreglass



“When it comes to RC racing, sometimes it is more about the overall enjoyment rather than the lap times”

threaded collars for easy ride height adjustment and are assembled with softly sprung front and rear springs. They are attached to the chassis via more carbon-reinforced fiberglass shock towers front and rear, which feature multiple mounting locations for further tuning options.

The chassis build is completed by the fitment of the body posts that require trimming down once the body has been fitted, and a hard foam front bumper. The battery is held into place via a carbon strap and locates in plastic mouldings that has optional fitting holes so you can use a shorty LiPo if need be.

RACING IN PARTNERSHIP WITH TURNIGY

Hobbyking kindly sent us some Turnigy products to use in the M.Rage for this review. First off was the Turnigy Trackstar 21.5T Stock Spec brushless motor, which provided a decent turn of speed during our test. This was thanks to it being powered by a Nano-Tech 6000mAh 90C 2S LiPo. Controlling the power was the Trackstar GenII 120A brushless speed control, which is a fantastic little speedo for the money of around £50.

As mentioned, we opted for a low profile Altorn servo for the steering duties. A standard unit fits fine, but it leaves very little space for the speed control install. Ideally you want all the electronics as low as possible to improve the overall handling.

Once all electronics are fitted there is little opportunity to adjust the motor timing so make sure your set this before fitting the motor.

We used our proven Sanwa MT-4S radio system for this review due to its impressive fast response time so our trusty RX-472 was our receiver of choice. This was mounted on top of the steering servo using double-sided tape.

NO JELLY MOULDS HERE

One of the most appealing parts of running an M-chassis-sized car is the scale looking bodies on offer instead of the usual racing jelly moulds. With the M.Rage you are supplied a clear polycarbonate Suzuki Swift-based body shell that includes a protective film covering the entire body to help prevent with overspray issues when painting. Remember to peel this film off prior to fitting the decals.

Two separate decal sheets are included – one with the M.Rage, BSR Racing and Basher logos and another featuring window decals along with lights and grills. All decals are pre-cut which speeds up the body assembly process and the body features clear cut lines and body post holes to follow. Only thing missing is some window masks so if you decide the window decals are not for you, do what we did with the review car and use some tape to mask the windows.

We opted for a simple design in keeping with

SPECIFICATION

Model:	BSR Racing M.Rage
Scale:	1:10
Class:	On-Road
Application:	Competition
Format:	Kit
Power:	Electric
Chassis:	Carbon-reinforced Fibreglass
Drivetrain:	4WD
Transmission:	Shaft
Differentials:	Ball
Shocks:	Oil-filled/Threaded bodies
Bearings/Bushes:	Bearings

TECHNICAL DATA

Length:	330mm
Width:	150mm
Height:	130mm
Wheelbase:	210mm
Weight:	1015g

WHAT WE USED - Electric Kit

TRANSMITTER:	SANWA MT4-S 2.4GHZ STEERWHEEL
RECEIVER:	SANWA RX-472 2.4GHZ
SERVO:	ALTORN AA-656LMG LOW PROFILE
SPEED CONTROL:	TRACKSTAR GENII BRUSHLESS
MOTOR:	TRACKSTAR STOCK SPEC 21.5T BRUSHLESS
BATTERY:	NANO-TECH 6000MAH 90C 2S LIPO

OPTIONAL PARTS

- NB3004 ALLOY REAR PIVOT BLOCK
- NB3008 ALLOY FRONT PIVOT BLOCK
- NB3009 ALLOY STEERING MOUNT
- NB3010 SOLID AXLE SET
- NB3011 ANTI-ROLL BAR SET
- NB3012 ONE-WAY
- NB3014 ALLOY SPACER SET
- NB3015 HARD SPRING (PR)
- NB3016 MEDIUM SPRING (PR)

VERDICT

- ➕ Super value for Money
Great kit spec
Fantastic fun to drive
- ➖ Not many clubs running a class
Limited space for electronics

RACER RATING

★★★★★

CONTACT

Hobbyking

Website: www.hobbyking.com
www.basher.com

the red, black and white colour scheme of the promotional art work. No airbrush art work here just rattle cans! Coupled with the decals we think the body came out well and looked fantastic whizzing around the track. The included rear wing bolts straight onto the back window so bear this in mind when you cut it out so to leave enough material to bolt it on with.

The light decals are quite tricky to fit without getting creases in them thanks to the curvy shape of the front end, and the same applies to the rear lights. The scale look is completed with the fitment of the door mirrors that are screwed on to help prevent any losses during door-to-door racing. ■

Vaterra Twin Hammers DT 1.9 Rock Racer RTR

Vaterra has updated their popular Twin Hammers with the DT model. Based on the proven Twin Hammers chassis, it comes equipped with a working LED light bar, Spektrum DX2E transmitter, LiPo battery and charger. The new Desert Truck is based on the proven Twin Hammers chassis design that features a long-travel suspension with a solid rear axle. This gives you all the footing you need to negotiate rock piles or blast across the flats. You also get realistic details like a roll cage, beadlock wheels and a functional LED light bar so you can keep running long after the sun goes down. The high-speed transmission provides a balance of rock crawling torque and level-ground speed, that can easily be converted to a two-speed transmission with the installation of a shift servo. The conversion will require a three-channel DSMR transmitter in addition to the servo, both of which are sold separately. A waterproof receiver, speed control and steering servo let you drive in the real world, where things get wet and the weather is often less than perfect. The included radio system consists of Spektrum DX2E 2.4GHz transmitter that is compatible with any DSMR receiver, including those equipped with AVC (Active Vehicle Control) technology. A Dynamite 2S 7.4V 2000mAh LiPo battery with charger completes the RTR package.

VTR03085I Vaterra Twin Hammers DT 1.9 Rock Racer RTR

Available from: Horizon Hobby UK
Website: www.horizonhobby.co.uk
Contact: 01279 641097



Etronix PowerPal Touch Duo

The Etronix Touch charger is now available as the PowerPal Duo Touch providing two outputs from one AC/DC powered unit. This charger features the latest in touch screen technology for the ultimate ease of use with a full scope of adjustable parameters available via the touch screen using the supplied stylus. With input from either mains or a 12V source, the it offers a charge rate of up to 10A so is suitable for most needs and applications. Once the charger is set to your specific battery charging requirements via the simple main screen selection, the screen can display a range of data during charging from battery curve voltage to individual cell charge state. Other features include individual cell balancing, Li-Ion, LiPo, LiFe, NiCd and NiMH cell capability, a time limit function as well as battery cycling and automatic charging.

ET0212 Etronix PowerPal Touch Duo £119.99

Available from: CML Distribution
Website: www.cmldistribution.co.uk
Contact: 01527 575349



Antex TCS 50W Soldering Iron with Handheld Temperature Control

Antex is one of the UK's leading brands in soldering technology and has introduced the first soldering iron with built in temperature control buttons and an LCD display in the handle, that is much neater than a conventional and cumbersome soldering station design. The temperature on the 240V 50W iron can be easily adjusted using the two buttons in the handle, and this can be set to between 200- and 450-degrees Celsius, which is displayed on the digital backlit LCD screen.

The TCS 50W is fitted with the Surefit Tip System, allowing bits to slide-on slide-off. The soldering iron comes with a long life 2.3mm Nickel-plated bit with nine different replacement tips available separately varying from 0.12mm to 6mm, and has an RRP of £69.99.



Available from: Antex
Website: www.antex.co.uk
Contact: 01822 613565

Schumacher CAT K2



The CAT K2 is the latest 4WD buggy from Schumacher Racing and has been developed by Schumacher's factory drivers. Most recently Michal Orlowski drove the K2 to an impressive fourth position after qualifying second at the IFMAR World Championships in Japan. With modern track trends the CAT K2 is optimised for high and low grip conditions. A longer, narrower chassis is claimed to make the K2 faster, more consistent and more versatile. New alloy chassis side stiffeners add to the tuning potential. The chassis features multiple battery fitting options for saddle and shorty options. There are new captive ball joints and split top decks for greater flex characteristics and easier maintenance. Other standout features include battery thumbscrews, stronger inner and outer hinge pins, a sleek, ultra narrow body shell and large 'Claw' high downforce rear wing package. Look out for a full review in Racer very soon.



K159	Schumacher CAT K2 - kit	£379.99
K160	Schumacher CAT K2 - assembled	£409.99

Available from: Schumacher Racing
Website: www.racing-cars.com
Contact: 01604 790770

Schelle Aluminium C Mount for Team Associated B5M

The Schelle B5M Aluminium C Mount is a replacement for the plastic version as found on the B5M, T5M and SC5M models. The aluminium mount adds security and additional tuning options, and looks great with a machined silver edge. The item weighs just 5g and is compatible with all standard width wishbone mount systems.

SCH1200	Schelle B5M Aluminium C Mount - Black
SCH1201	Schelle B5M Aluminium C Mount - Blue
SCH1203	Team Associated B5M C Mount Inserts

Available from: CML Distribution
Website: www.cmldistribution.co.uk
Contact: 01527 575349



Axial RR10 Bomber

Axial has partnered up with Randy Slawson of Bomber Fabrication to create the RR10 Bomber. The Axial RR10 Bomber adds to their line of successful 2.2 rock racing vehicles. While visually this rig is a race replica of the Bomber Fab KOH rock racing rig, one of the unseen features is the front mounted battery tray under the bonnet, adding weight right where it is needed and for quick and easy battery changes.

The skid plate provides a centralised location for the electronics with clean wire routing and an RR10™ specific transfer case for optimal driveline efficiency. Axial has also included a full set of BFGoodrich Baja T/A KR2 tyres along with a spare in the back, wrapped around officially licensed Walker Evans Racing wheels. There is a variety of shock mounting points for running dual shock set-ups and more suspension tuning options. For additional rear suspension tuning, you'll find an anti-roll bar mount connected to the cage under the fuel cell for the optional bar. Officially licensed aluminium King Shocks feature precision machined pistons, which offer smooth performance throughout the range of travel. Standard features include durable front and rear WB8 HD Wildboar driveshafts, front and rear AR60 axles, a dual slipper clutch, Hi-Lo transmission with all metal internal gears, a three-channel radio system, realistic scale details including moulded driver figures, three pairs of helmets, moulded shock reservoirs, a fuel cell, Bomber Fabrication body panels and graphics and a fully licensed scale tube chassis.

AX90048 Axial RR10 Bomber 1:10-Scale Electric 4WD RTR

Available from: Hobbico in the UK
Website: www.axialracing.com
Contact: 0845 459 1966



Pro-Line T-Shirts

The US manufacturer has released a range of four new T-shirts and the first up is the Chopped Navy model that features a new artistic and futuristic take on Pro-Line's classic logo, with each letter chopped and twisted at a unique angle. Secondly there is the Sunset Grey that adopts the Pro-Line's home state of California circled around a setting sun in two shades of Pro-Line blue. The Infinite Black T-shirt is the third new release and uses an ever-expanding Pro-Line logo in white and different shades of blue leaping out of the chest, whilst for all the females out there including racers, wives and girlfriends, there is the Infinite Blue Girl model. Pro-Line's new T-shirt for women features the same design as the Infinite black, but blue in colour with a dedicated cut to suit the female form.



9809 Pro-Line Chopped Navy T-Shirt
 9810 Pro-Line Sunset Grey T-Shirt
 9811 Pro-Line Infinite Black T-Shirt
 9812 Pro-Line Infinite Blue Girl T-Shirt

Available from: CML Distribution
Website: www.cmldistribution.co.uk
Contact: 01527 575349



RC4WD Warn 1:10 Premium Winch Hook

This is another licenced Warn item from RC4WD made from alloy as a scale replica of the full-size winch hook. It is highly detailed with a working safety latch that can be easily installed.

Z-SI551 RC4WD Warn 1:10 Premium Winch Hook

Available from: RC4WD
Website: www.rc4wd.com
Contact: rcrock@rc4wd.com



Revolution Design B5 Bellcrank Aluminium Set

Made to replace the standard plastic steering bell cranks of Team Associated's B5 series vehicles is the RDRP B5RM/MM aluminium set. The parts do away with the kit's plastic steering bell cranks in favour of stronger levers for added rigidity and better looks. The CNC-machined 7075-T6 aluminium construction considerably strengthens the steering assembly for less slop, a more precise steering reaction and less flex, resulting in a rock solid steering feeling and more durability in the event of a crash. The RDRP B5RM/MM bellcrank aluminium set is made for the use with B5 and T5 series kits and it comes blue anodised and laser-etched to match the remainder of RDRP's Team Associated option parts.



RDRP0250-BL Revolution Design B5RM/MM Bellcrank Aluminium Set (blue)
 RDRP0250-BK Revolution Design B5RM/MM Bellcrank Aluminium Set (black)

Available from: X-Factory UK
Website: www.xfactoryrc.co.uk
Contact: 01923 816636

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SPEC: 4WD CARBON FIBRE CHASSIS **CLASS:** 1:10 ON-ROAD ELECTRIC COMPETITION **COST:** £399.99





Keeping On Top of Things

Stephen Coyle gets his hands on Xray's latest touring car for the 2016 season in the form of the T4'16. Whilst the changes may appear to small, there is no doubt that Xray are continuing their strive for perfection

As always Xray have a reputation for bringing out a new touring car every year and the new 2016 model has now arrived. So what has changed? Well the price point is a little higher to start at £399.99 compared to £389.99, and then there is a list of things on Xray's website that offers the following information:

- All-new chassis design
- All-new motor mount flex system
- All-new top deck
- All-new rear suspension holder for ARS
- All-new front ECS driveshafts

This is not a huge list and if you speak to the current 2015 drivers they say that the car is already at the top of its game and, "If it isn't broke don't fix it!" It is funny that everyone tries to guess what Xray are going to change and I have been watching the recent ETS rounds and looking at the team cars, but I could not see any major differences on their cars. When the car did come out there were some amusing comments on Facebook and Twitter. One of my favourites was, "Martin Hudy is rumoured to have spent more time on his hair than design of the T4'16." To give him his due and showing his sense of humour, Martin actually responded with "Yes, 2016 new line-up of XRAY cars along with 2016 new hair style. Constant improvements in all fields. Just testing new hair style prototypes and the first results are very positive. Just follow me for any updates." A great response and to me that sums up the changes to the car - very little, but then very little needed changed.

The Editor and I had a good chat about whether I should do this review as a very short update review or go through a complete build again. We decided to do it as a full review for those of you that missed the May 2015 issue, but I warn you now that the

SPEC: 4WD CARBON FIBRE CHASSIS **CLASS:** 1:10 ON-ROAD ELECTRIC COMPETITION **COST:** £399.99

review is quite similar in line with the car being quite similar!

JUST WHAT YOU EXPECTED

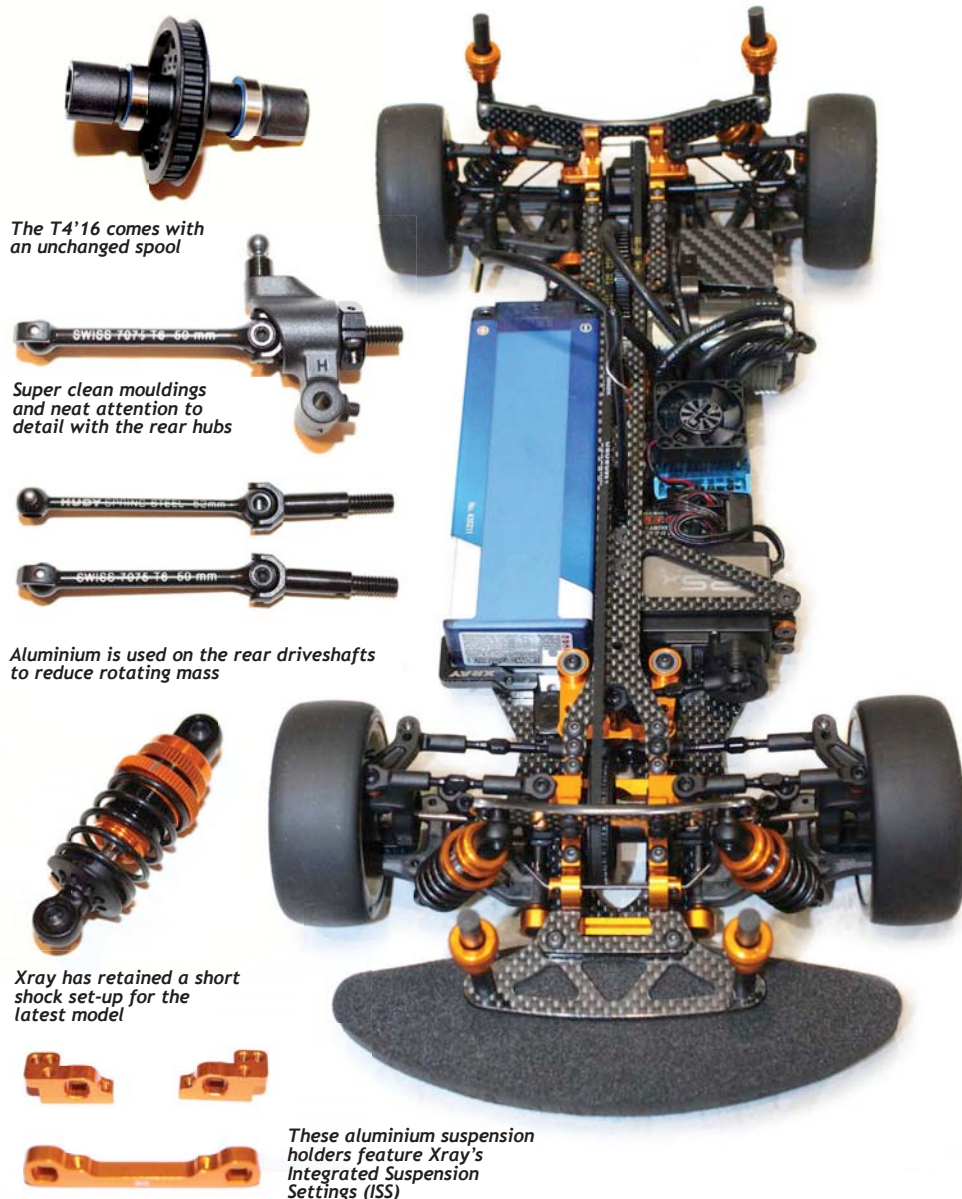
To save you time I can just say that the quality of the car is still first rate, as expected from Xray, and everything fitted perfectly with no shimming or trimming of parts. With an Xray build you almost feel that you could just shake the box and all the parts would just fall together to give you a completed car. So here is the full review and I will emphasise any of the 2016 changes as I go...

CHASSIS PREP

The first step in the T4'16 build is chassis preparation and in the manual they suggest you run some superglue round the edge of the chassis and also in the front and rear screw holes where the bumper and the rear hinge pin holder attaches I believe this is to stop the screws pulling through the chassis in the event of a big crash, but I go a bit further than this as I like to round the edges of the chassis before gluing it. Some question the benefit of this based on how good the quality of carbon fibre has become. I like the idea of rounding the edges slightly for carpet racing so that the chassis will not catch during cornering and if the by-product of this is a chassis that will not delaminate then it is worth doing. My method is to use a Dremel with a coned sanding bit fitted. I run this lightly along the sharp edges of the chassis on both sides – make sure you do this in a well ventilated area preferably with a face mask on as the dust is very dangerous. I then apply a coat of tyre glue to the sanded edges using a cotton bud. Once this dries I lightly sand and then apply a second coat and that's it. Is this required especially as the chassis's in modern cars are very narrow? I don't know but it does look nice when finished.

GEAR AT THE REAR

Next up is the rear gear diff that I don't believe has changed a lot in the last few cars and has certainly not changed from the 2015. I have never had any problems with Xray gear diffs leaking as they not only use a gasket as a seal, but also use a silicone O-ring too. In the manual they recommend 1000wt oil but over the last few cars I have been running on carpet I have been using thicker and thicker oils. The manual provides hints on when you might want to use heavier or lighter oil – softer oil increases rear traction and harder oil increases on-power steering. As I said lately I have been running thicker oil so I went with 3000cst. The manual shows how the gear diff can be filled with the correct amount of oil every time by measuring the weight of the gear diff at about 7.90g and then adding 1.3g of oil to take the weight to 9.20g – amazing detail! I will admit to owning a set of the Hudy scales just for this purpose and it is a pretty accurate way of building the diff and making it consistent build to build. Before putting the



O-rings into the diff cases I coat them with some Schumacher white diff grease and put some Team Associated black grease on the outdrive shaft. Other than that the diff was built to the instructions in the manual and was very smooth once completed.

SPOOLING UP FRONT

The T4 like pretty much all modern cars comes with a spool for the front of the car. Some people have been experimenting with a diff in the front with 1m oil or even cleaning putty to give a bit more steering on tight tracks, but I have always liked the way a spool pulls you out of corners so I stuck with the kit item. The Xray spool is completely plastic including the outdrives, although there are optional steel spool versions. As I run 13.5T boosted I have always been happy with the plastic versions and they have apparently been reinforced in the latest car. Don't forget to put the bearings onto the diff before attaching the outdrives – you can guess I learned that the hard way and had to rebuild...

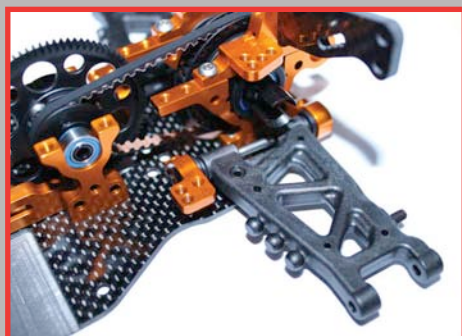
Next up is fitting some alloy in the form of the bulkheads and motor mount onto the chassis.

Prepare to be blinded by the orange alloy parts – you will either love or hate the colour. I quite like it and anyone that sees your car knows you are driving an Xray. Some people even go further running orange alloy screws, but there is more than enough orange with the parts supplied so I stuck with the kit screws. One of the areas that received particular focus on the T4'15 was the motor mount and this comes in for a bit more attention in the 2016. The new motor mount plate features extra chassis flex adjustment screws. As before the motor mount is part of the left layshaft bulkhead to eliminate unwanted tweak. The motor mount is connected to the chassis by two screws under the layshaft and features the mounting system in front of the motor. The system consists of a plate that is connected to the motor mount by a button-head screw that is less likely to cause tweak compared to a countersunk screw. The motor mount plate is connected to the chassis via an M3 nut and an extra countersunk screw can be placed ahead of the nut if more reinforcement is needed, or the nut can be removed, and one or two new holes can be used as extra

“The T4’16 is of the usual Xray high quality and this is definitely a premium car. Even the hints and tips in the manual set this car apart!”

Racer Tips

Just build it and race. For a less twitchy set-up, remove the four screws over the layshaft mount to get a bit more flex.



The stock compound wishbones were replaced with optional stiffer versions



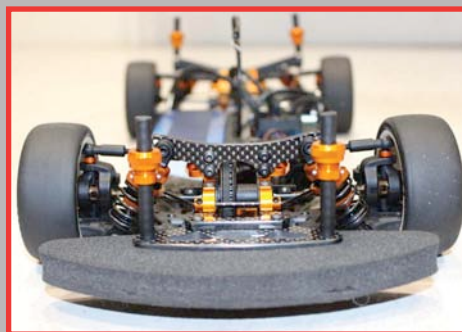
Here you can see the nut that holds the motor mount in position



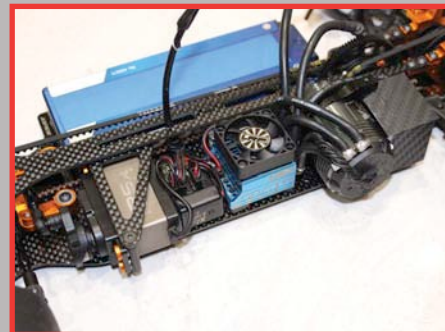
Xray claim the suspension holder system is independent from the bulkheads to generate more traction



Rear-end detail of the latest Xray. Note the removable inserts in the rear suspension holder



The standard composite bumper upper holder brace was upgraded to carbon fibre



A selection of KO Propo and LRP equipment was used in the T4'16 build

flex adjustment options. I built my car as per the 2015 set-up without the two new screws in place. In my first run, on carpet, I did add the two screws at one point and, to be honest, I could not feel any difference, but I did not try removing the nut and just using the screws.

The resulting motor mount is very nice and, in the manual there is very clear instruction on the order to tighten the screws to attach it to the chassis. Follow this and you will have tweak-free motor mount. It is also worth noting the diagram in the manual at this stage that shows that the bulkheads have a left- and right-side for the bearing mounts for the anti-roll bars. Yes you read that right - bearings for the anti-roll bars but more on this later.

With the bulkheads in place, the spool and gear diff built, it is time to build the centre layshaft. This consists of a black alloy layshaft that the supplied 84T 48dp spur gear attaches to with three screws. Then pins are put in either side of the spur gear and two 20T pulleys mate with the pins before being secured with large E-clips. So by page 11 of the build the chassis has been prepped, the gear diff built along with the spool and centre layshaft and they are ready to go onto the chassis. These simply drop into the bulkheads that are attached to the chassis.

There are recommendations in the manual on how to set the front and rear belt tensions and I found these were spot on. Another option highlighted at this point is the optional belt tensioner, which is something I may add in the future when the belts loosen up a bit.

The upper bulkheads are attached next and these feature four holes for camber links to attach to on the inside. The front and rear shock towers are attached to the upper bulkheads and the car is starting to take shape with the complete drivetrain in place.

OPTIONAL ARS

With the drivetrain in place the next stage is to get the front and rear wishbones ready to go on the car. One of the surprises last year for me with the T4'15 was the inclusion of the Active Rear Suspension (ARS) parts for the rear of the car along with the more normal rear suspension. I am not aware of too many people who have made use of the ARS, but it is nice to get it included in the kit and for the 2016 Xray continue to provide both normal and ARS options. The ARS system offers new adjustment possibilities and driving characteristics by effectively putting what looks like front steering parts on the

rear of the car. This is an oversimplification, but by putting the ARS parts on you get dynamic toe-in at the rear of the car. The ARS suspension consists of different rear arms and graphite 0-degree C-hubs for optimal flex characteristics. The 2015 car then used a separate post mounted to the chassis and linkage that connected the post with the steering block. On the 2016 car these posts, which I thought might rip through the chassis in a big crash, have now been done away with altogether and the link now attaches to the rear suspension holder in a special new hole. The principal is the same and the angle of ARS linkage, which is set by adding/removing shims on the steering block and ARS post mount, changes the toe-in characteristics of the rear of the car as the car corners so that when the car is pressed under turning the toe-in can either increase or decrease. This means that you could set up the ARS to have 2-degrees of toe when the car is travelling in a straight line, giving better speed, but then when the car compresses under turning the toe increases to 3-degrees. It is very interesting in theory and a number of manufacturers are bringing it out for their cars. Looking at set-up sheets for carpet racing none of the team drivers seemed to be using it indoors so I elected to go with standard >

SPEC: 4WD CARBON FIBRE CHASSIS **CLASS:** 1:10 ON-ROAD ELECTRIC COMPETITION **COST:** £399.99

ON TEST

The UMCC club that I race at has recently moved indoor venues and we now have one of the huge gyms at the Wellington College in Belfast. They allow us to use one gym area to race in and another to pit in which means we can carpet one complete hall. This has given us a far bigger track to run on and is fantastic for 13.5T boosted, which is the class we run indoors. Before I turned up at the track I decided to put the set-up from the T4'15 onto the new model. Looking at the kit carpet set-up sheet the main differences are 2mm for the bump steer instead of 1mm, I run droop of 6mm and 4mm instead of 5mm and 5mm. I have the rear shock down one hole in hole two. The other main changes are slightly softer roll bars at 1.3mm front and 2.3mm rear and slightly harder springs at 2.6 all round instead of 2.5.

I went out for some practice after putting Nosram additive on the Sorex 28 control tyres and immediately the car felt really good to drive – no drama at all and my laps felt consistent and the car felt safe. If anything I felt that the car was not gripping enough, which I put down to a lack of running on the carpet. So I decided that I would go to the Xray progressive springs and fitted a set of 2.5–2.8s all round. The idea behind the progressive spring is that it starts out soft, but as the car loads up in a corner the spring rate gets harder. Out again and immediately I thought the car felt better, turning into the corner better and just feeling like it had more grip. The other Xray drivers were still running 2.6s all round, but I just liked the way the car felt with the softer feel.

To be honest the days racing was a bit boring after that!

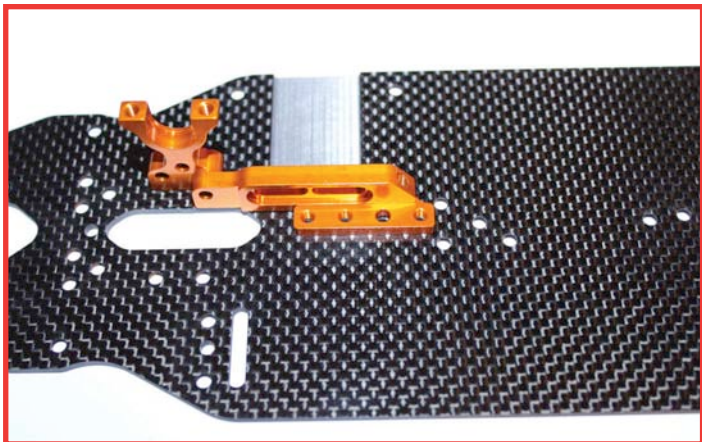
I did not change anything on the car all day although I did keep dialling more boost into the LRP Flow WorksTeam and also physical timing on the X20 13.5T motor and the T4'16 just kept working lap after lap. After round one I was sitting sixth overall, then I went faster in round two, but dropped to seventh. For the third round I decided to fit the brace across the steering like I had done on the T4'15 when racing on a tight track. This though made the car feel a bit unbalanced and it started to oversteer. I remained in seventh position for the A final so a good days work.

For the finals I decided to remove the brace and just run the car. It was back to being super consistent and when somebody broke in the final I took sixth place. To be honest it is hard for me to catch the likes of Mark Gilliland and Alan Bickerstaff, both EWS A finalists so I spent my time running against the clock. For the second final I put the additional two screws into the motor mount, but I could not feel any real difference as I said in the review. I didn't remove the nut and screw on the motor mount so maybe that is when the difference will really be felt?

The last final was much like the rest of the day as I went faster again on my lap time and the car just felt so easy to drive. From that perspective the T4'16 is very much like it's predecessor as it's a very nice car to build and works really well out of the box, and the addition of ECS driveshafts in the kit makes it even better. With regard to set-up, I would start with the kit settings and possibly try some of the changes I mentioned but don't worry too much as the Xray is a very consistent car and is definitely a quality build.



These orange anodised 7075 aluminium body mounts offer finer adjustment than a regular post offers

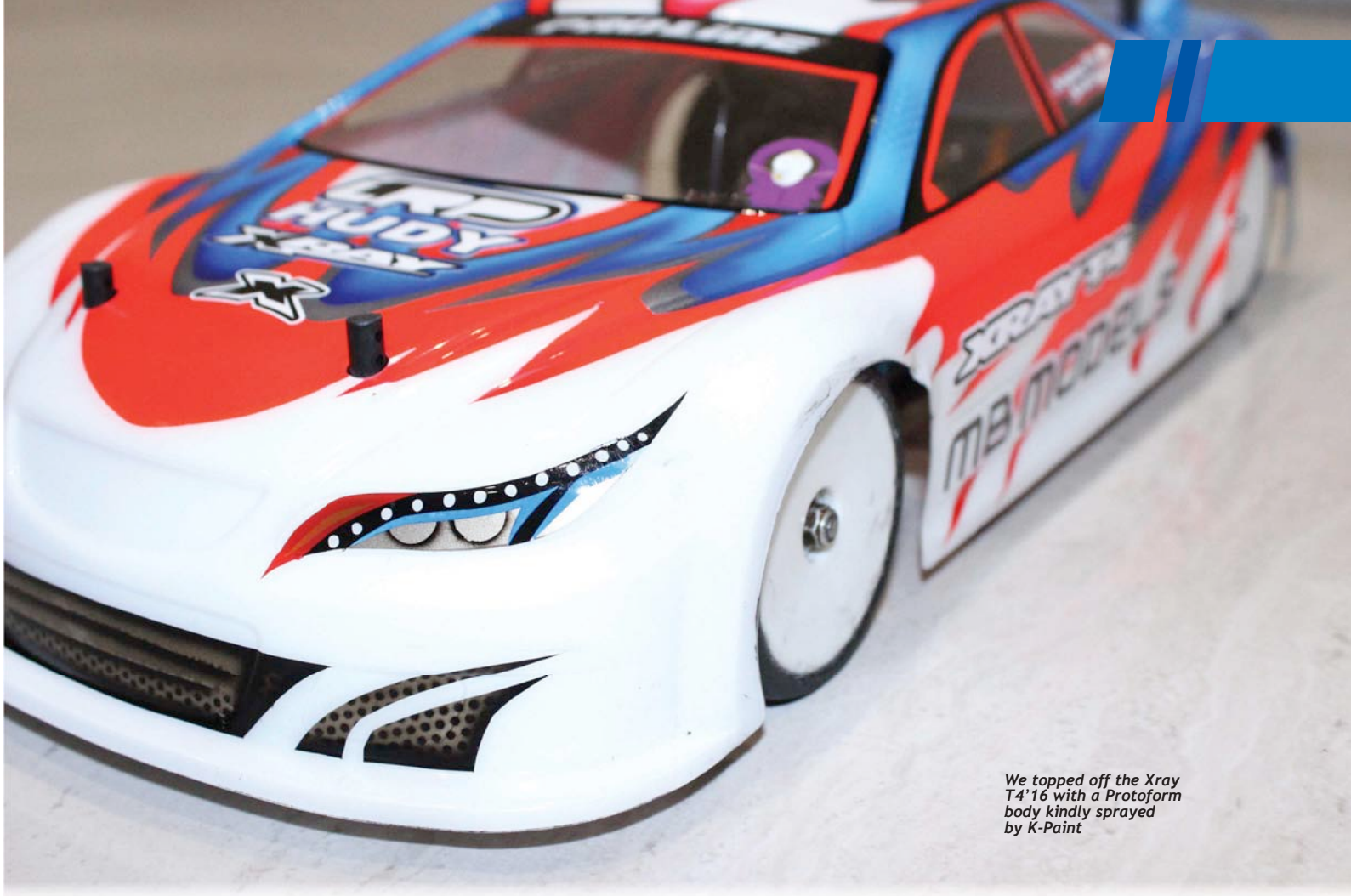


The motor mount allows up to four fixings to be used to alter the flex characteristics of the handling



Xray's SLP aluminium shocks have been shortened for greater stability and prevent traction rolling

The front spool, spur gear and rear gear diff



We topped off the Xray T4'16 with a Protoform body kindly sprayed by K-Paint

◀ suspension, but it is definitely something to try outdoors on more open tracks.

The other thing that I noticed when reviewing team set-up sheets was that the team drivers all used graphite wishbones instead of the kit versions so I added these. The harder wishbones are supposed to give more traction, but can be more fragile due to the higher graphite content. When the wishbones are built up and ready to go into the car you use eccentric inserts to set the toe in on the car. For the front, as you can read about in my first run, I went with a 0.5 out insert at the front and a 0 insert at the rear front to give some sweep to help the car turning. On the rear I went with 0 and 0, but you are given a full set of inserts to change the toe, anti-squat, kick-up, anti-dive and car track width. This is a simple but effective tuning aid and definitely less expensive than having to buy a variety of alloy blocks to get different settings.

TWO OF THE BEST

The steering on the T4'16 continues with the dual bell crank mechanism that runs on six bearings and is very smooth when put together. The only thing that is a bit below par compared to some other manufacturers is the use of plastic for the dual servo saver arms, but of course there is a hop-up alloy version that according to the manual is recommended when better steering response is needed. On the steering, something that Xray do very well is their servo saver, which consists of a larger plastic servo horn that is connected to your servo via a mechanism that uses four different size spring clips. These clips provide some give in

the event of a crash and means that your servo does not bear the load and break. I have seen people using the Xray saver in non-Xray cars as it is thought to be that good. With the steering built up and put onto the two posts that connect it to the chassis the top deck is put in place using 12 screws. The top deck has received some 2016 care and there is a further cut out near the layshaft to make it easier to tighten the grub screw for the pinion. A small point but this is the level of detail that Xray are into for the 2016 car. The 12 screws are the initial setting, but a lot of the set-ups show the middle four screws over the layshaft removed to allow for some flex at the centre of the car. Another option at this point is a steering plate that goes across the steering assembly to make stiffer and an option to connect it to the top deck to make it even stiffer. Doing this and making it stiffer results in more aggressive handling and increased steering. There is an option to put a post in, just in front of the layshaft that connects the chassis to the top deck, which is supposed to improve forward and rear traction. Lots of options and that doesn't include the option of a thinner top deck as well!

ECS INCLUDED

Moving on to the front and rear driveshafts and these are Xray's very high quality take on driveshafts. In the front Xray finally provide full DCJs – or ECS driveshafts as the manufacturer calls them – and are the new extra-strong versions, made of Xray's renowned Hudy Spring Steel that decrease front wheel vibration when using a spool up front and should give increased steering. I suspect that

this is where the additional £10 in the retail price comes from but worth every penny. For the 2015 car a set of ECS driveshafts would have set you back nearly £70 so well done Xray for including them in the kit. The rear continues to use aluminium driveshafts to reduce rotating mass that go together very nicely and are very free. The manual also explains the alternative driveshaft length versions in 50mm lengths and why you may want to run those on some occasions.

The driveshafts go into their respective hubs via rubber sealed bearings. At the front the 4-degree C-hubs use alloy bushings at the top and bottom that screw from the bottom and the ball stud at the top goes through into the hub. By using these bushings you can tighten the screw and ball stud down and still have smooth steering. Xray make use of small grub screws that go through the front and rear hubs and mate with the outer hinge pins that stops any movement so there is less slop in the hubs over time. Again Xray quality comes in as I did not have to do any work on the holes in the wishbones to allow the hinge pins to move freely – all good out of the box. With the front and rear built up the turnbuckles attach to the hub and inner bulkhead. Xray had updated the 2015 with four holes on the bulkhead front and rear to allow for finer tuning of roll centres and these are the same for 2016.

THREE FOR FREE MOVEMENT

The next three pages in the manual cover building up the anti-roll bars and fitting them to the car. These anti-roll bars are some of the best I have ever seen in a car and that starts with the anti-roll ▶



The spool in component form along with the moulded outdrives



The steering assembly runs on six bearings for smooth operation

bar itself which is laser engraved with a number of lines that indicates its size – four bars is a 1.4mm anti-roll bar for example. Hopefully you can see in some of the pictures of the bulkheads that there is a circular shape at the very back of the bulkhead and this is to take a bearing. The bearings go into the bulkhead hole, then the anti-roll bar goes through the bearing and a bushing goes into the bearing to stop any movement. The anti-roll bar then moves on the bearing and so is very smooth with no lateral movement – very nice indeed. The anti-roll bar is then attached to the wishbones of the car through a composite ball joint and ball stud. By using the ball stud it is easy to change the height of the anti-roll bar connection when setting it up to ensure there is the same movement on both sides of the car. You simply screw the ball stud up and down and this is done with the anti-roll bar attached and still in the car making life a lot easier. The manual is very clear on how to set your anti-roll bars up, again all credit to Xray for producing a very clear manual.

THE SHORT OPTION

Just the shocks and electrics to go now and for 2016 Xray have continued to stick with a short shock length. I built my shocks with 1.1mm four-hole pistons from the full range that are supplied with the kit and I used Xray 400cst oil front and rear. I did not use the included foam

inserts above the bladder, set my rebound to be about 20 per cent and completed the build with the included 2.5 rated springs. These springs did feel a bit soft for carpet as they did for the 2015, so I immediately put on 2.6 springs all round. The shocks were very smooth and even after the first days racing still felt very nice with no air creeping in. After the shocks you are in the final stages of the build with the front bumper assembly next.

Electrics wise I fitted a new KO Propo RSX 10 servo and installed a Hitec receiver to go with the Hitec Lynx 4S radio. On the T4 the servo is attached by the same floating servo mount with a graphite top plate. The servo saver then attaches to the servo and instructions are given in the manual as to how close the servo should be to the steering crank. Finally I fitted a LRP Flow WorksTeam speed control and LRP X20 13.5T motor alongside LRPs; dedicated TC stock spec 5800mAh battery ready for its first outing, which would be at the UMCC's indoor round at Wellington College in Belfast.

TO CONCLUDE

What can I say... Xray have not changed a lot since the previous incarnation but the addition of ECS driveshafts for steering duties are very welcome in the box. The other changes simply make the car better, but as I said earlier if it isn't broke don't fix it and certainly for now Xray feel they have a winner. ■

SPECIFICATION

Model:	Xray T4.16
Scale:	1:10
Class:	On-Road
Application:	Competition
Format :	Kit
Power:	Electric
Chassis:	Carbon Fibre
Drivetrain:	4WD
Transmission:	Belt
Differentials:	Spool (front)/Gear (rear)
Shocks:	Oil-filled/threaded bodies
Bearings/Bushes:	Bearings

TECHNICAL DATA

Length:	372mm
Width:	189mm
Height:	115mm
Front Track:	189mm
Rear Track:	189mm
Wheelbase:	256-260mm
Weight:	1350g

WHAT WE USED - Electric Kit

TRANSMITTER:	HITEC LYNX 4S 2.4GHZ STEERWHEEL
RECEIVER:	HITEC AXIOM 2 2.4GHZ
SERVO:	KO PROPO RSX 10
SPEED CONTROL:	LRP FLOW WORKSTEAM
MOTOR:	LRP X20 13.5T
BATTERY:	LRP 5800MAH TC STOCK SPEC 7.4V LIPO

OPTIONAL PARTS

■ #302169	GRAPHITE FRONT WISHBONES
■ #302525	ALLOY STEERING ARMS
■ #302570	STEERING PLATE
■ #303071	OPTIONAL BELT TENSIONER
■ #303169	GRAPHITE REAR WISHBONES
■ #305137	STEEL SPOOL OUTDRIVES

VERDICT

➕ Xray quality
ECS driveshafts included
ARS system in the box

➖ Hard wishbones not included as standard

RACER RATING

★★★★★

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www.teamxray.com

SUMMARY

Not a lot of change this year, but as you would expect from Xray the T4.16 is a high-quality well made car, that is very quick out of the box. You get not only normal rear suspension but also the parts to run an ARS version and you now also get ECS driveshafts in the box – this really adds value to what is one of the more expensive kits on the market.

03: Tekin TSC-410K

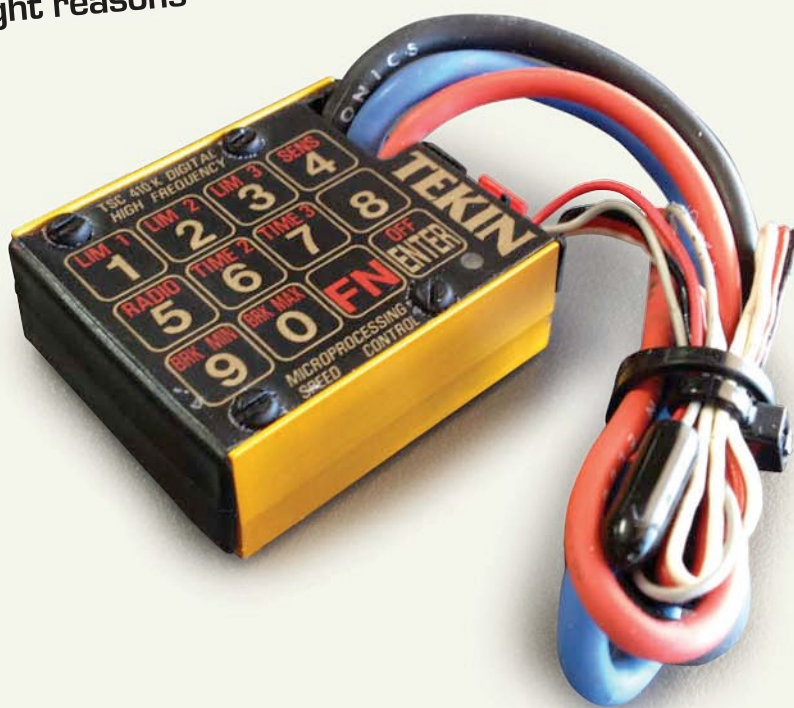
The 410K saw the first and only keypad interface on a speed control and with some very clever functionality, this unit stood out from the rest for all the right reasons

Nineteen ninety-two was very much a different era when it came to electronics in RC. Whereas now you can assume that an electronic speed control will come with every electric RC kit, and it will use microprocessor control and have a certain amount of intelligence built into it, back then it wasn't the case. For a start, all entry-level kits had a mechanical speed control (in effect a massive resistor connected to a servo) that bled off about a tenth of your battery power in heat. An electronic speed control ranged from something that was encased in heat shrink and had a whopping great big relay, which clicked when going from forward to reverse, to a slightly more glamorous American affair like a Tekin 410G or Novak with its FETs sticking out of the top, covered in contrasting coloured heatsink. For all their solid state glory, the best electronic speed control you could buy in the early 90s still had manual potentiometers to set the neutral point and brake levels and weren't the intelligent units we have today.

OLD AND GOLD

Then came the Tekin 410K. For a start, it looked nothing like anything that went before – no exposed heatsink, no adjustable rotating pots, and the aluminium heatsink was smooth, wrapped around the bottom and sides. Oh, and it was gold! What you didn't fail to miss either was the keypad on the top, laid out like a calculator watch, and the proud script that read "Digital High Frequency Microprocessing Speed Control". Oh yes, the year 2000 had arrived eight years early...

The 410K could be programmed and set-up using the buttons on top, via a confusing sequence of presses and beeps that set the parameters such as current limiter, sensitivity and braking levels. You could even set multiple current limiters to give you punch off the line at the beginning of the race, followed by a battery saving program that meant you lasted the five



"When you turned the 410K on it played a tune using the motor to generate the sound!"

minutes on your 1700mAh SCRCs at the end – all rather cool. It even had the de-rigueur pigtail to power your KO Propo PS-1001 FET servo – top retro points then.

PAYING THE PRICE

But, the Tekin from another planet was not without fault. Firstly, it was expensive, secondly, it was confusing to set-up, and with no screen you didn't know if it was actually doing what you'd asked it to. But it was also plagued with

reliability issues – for instance, if it got hot (and it did), when you pressed the button top to turn it off, you could damage the components inside – at least it had a sexy remote turn-off function which mitigated the issue. Lastly, it was a pain to change wires on as they went inside the case rather than being brought out to solder points on the outside.

So all in all, it was the beginning of the future, but like most trail-blazing products, it wasn't without its faults. You cannot argue though that it did look incredibly sexy... ■

WHAT: RED BULL RACING RB7

Let the Engine Breathe

Packs 19 and 20 see us continue adding components to the engine including the air filter, exhaust and clutch mechanism.

STAGE 73 - THE FLYWHEEL WRENCH (RB7-073)

What do you get?
Flywheel wrench

Pretty simple this one. The stage sees you get a tool that is specially made to hold the flywheel in place whilst tightening it to the engine. The flywheel comes in to use in the next section.

Stage 73

19



This tool is used to hold the flywheel in place

STAGE 74 - THE FLYWHEEL (RB7-074)

What do you get?
Flywheel
Pilot shaft

TAPERED COLLET

The flywheel plays a pivotal role in the running of your engine. Essentially it is a spinning mass that helps keep your engine turning and helps regulate the speed of the engine. If it was too heavy the engine wouldn't run well and too light and the engine can over rev and destroy itself. The clutch shoes are also held on to the flywheel using the pins that extend from it. In this section the tapered collet is put onto the main shaft of the engine first with the larger end sitting against the bearing. The flywheel is then placed onto the shaft and the flywheel wrench is used on the clutch pegs to hold it steady. The pilot shaft is then bolted onto the main shaft with the four-way nut driver. This presses the flywheel onto the tapered collet ensuring a tight fit.

Stage 74



Coned washer, flywheel and the retaining nut



The engine ready to accept the flywheel



The coned washer makes for a tight fit

The tool holds the flywheel whilst the nut is fitted



Make sure that the nut is very tight

STAGE 75 - INSTALLING THE CLUTCH SHOES (RB7-075)

What do you get?
Clutch shoes and spring (pre-assembled)
5x20mm shims
3x6mm dome-headed screws
Clutch bearings
4.5x10mm washers

You will find the clutch shoes and clutch spring pre assembled in your pack. The instructions suggest you remove the clutch spring from around the clutch shoes to enable you to fit them. That said, we suggest you push the assembly onto the pegs, and then by using two small allen wrenches into the holes allows you to move the spring away enough for you to push the clutch shoes fully onto the flywheel without having to remove the spring. Please note that no major force should be required to complete the task. The shim washer is then set into place and this helps protect the clutch shoes

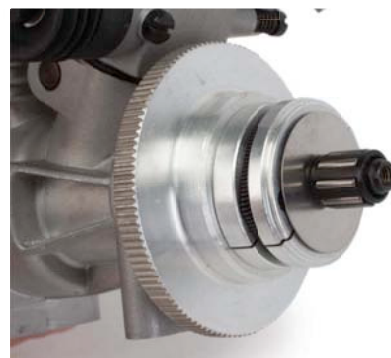
Stage 75



The clutch assembly and roller bearing



A spring sits around the two clutch shoes



The large washer and bearing fitted



The clutch bell is supported by a roller bearing and is then held in place by a washer and screw. There should be a little float on the clutch bell to prevent heat build up

Stage 76

STAGE 76 – THE CLUTCH BELL (RB7-076)

What do you get?
Clutch bell

The clutch bell is the first point in which the power from the engine is delivered to the drivetrain. The two clutch shoes spin out at high speed engaging with the inner surface of the clutch bell causing that part to rotate. The gear on the front of the clutch bell then transfers the power to the drivetrain. You simply slide the clutch bell over the bearing, then the small washer from the previous section and bolt are added to hold it into place. You will need to ensure that the bolt is done up tightly. We often use a very small amount of threadlock on the bolt, but we do mean a very small amount as too much would mean you may never be able to remove the bolt in the future.

Stage 77



PACK 20

STAGE 77 – FITTING THE SILENCER (RB7-077)

What do you get?
Silencer (pre-assembled)
Tailpipe
gasket
3x10mm cap screws
3x8mm
dome-headed screws



A gasket is positioned between the engine and silencer

The exhaust silencer and tail pipe

The tail pipe allows the gases to be directed out the rear of the body



The gasket fitted to the silencer...

...and is then bolted to the engine



The engine with the silencer and clutch assembly fitted



The tail pipe exits through the rear



The engine can now be fitted into the chassis



The clutch bell is meshed against the spur gear



These four screws allow the motor to be accurately positioned

Just like the clutch the silencer (exhaust) is a very important part on a nitro engine. The engine in the Red Bull works on the two-stroke principle so the silencer provides backpressure to keep the it running well. If a silencer falls off or becomes damaged this can lead to all sorts of problems for the engine – even early expiration of the power unit. Fitting this part is fairly simple as the silencer comes pre-assembled and simply bolts onto the engine with the gasket inserted between the surfaces. Make sure that all the bolts are tight on the silencer before fitting, and use some threadlock on the bolts holding the exhaust to the engine as this will help keep it in situ during use. Threadlock will eventually burn off though with the high temperatures these engines meet, so whenever you have finished running your model you should check these bolts as a high priority. There is also a rubber extension that slides over the outlet on the silencer. This feeds down through the tunnel and outlets via the rear diffuser just like the full-size car. You will have to remove the front brace support in order to fit the completed engine unit into the chassis. With the engine in the chassis you can add the four bolts into the engine base through the engine block mount on the chassis, but do not tighten them at this stage. To set the mesh between the clutch bell and main gear, use a piece of stiff paper or header card from the packaging in between the two gears to create some backlash and this will help ensure smooth and quiet running. You want a very tiny amount of play

Stage 78



The air is cleaned before it enters the engine by this filter

The foam slides over the air filter moulding

The decals and crash helmet moulding for the air filter

WHAT: RED BULL RACING RB7



The air filter sits inside the crash helmet

The crash helmet complete with decals in place



Stage 79



The switch and plate with on/off markings



The wires are kept neatly out of the way



Make sure that on is on and vice versa before fitting the switch plate

Stage 80



The battery box and aerial tube



Pirelli and P Zero decals for the final tyre



The battery box sits next to the engine



Applying the Pirelli decal



Tyre decals in place and ready to be fitted to the chassis

◀ between the two gears – too loose or tight and the gears will fail, and it will also be very noisy! Once this has been achieved you can then lock the engine in place by tightening the four engine bolts.

STAGES 78 – FITTING THE AIR FILTER (RB7-078)

What do you get?

Sticker sheet

Helmet air filter covers (left and right)

Dome-headed screw 2.6x8mm

Dome-headed screw 2x6mm

Air filter base

Air filter pipe

Air filter cap

Air filter element

If you thought you were finished with stickers on helmets in a previous stage then you are mistaken. The air filter on this model is cunningly hidden inside a hollowed out helmet. The filter element needs the central core removing as this is only used to keep the shape of the air filter during transit. Place the filter over the bottom section of the filter housing, which is kept in place by a top cap secured with a small screw. The completed filter housing is then placed into one side of the helmet moulding and then the other side is placed over the top and secured with a 2mm screw. The air filter pipe is then pushed into place on the air filter housing

protruding from the helmet. Finally add the sticker to the helmet with the included decals, some of which have been held over for another section. This helmet is easier to sticker as these are self-adhesive unlike the show helmet from earlier in the build. The completed assembly is then pushed onto the inlet pipe of the carburettor.

STAGE 79 – FITTING THE RC POWER SWITCH (RB7-079)

What do you get?

RC power switch

The switch controls the power to the radio system and this simple stage requires you to install it into the chassis. The top plate needs removing from the switch, making a mental note which end is 'on'. The black wire of the switch is led towards the rear of the chassis. With the switch fitted to the chassis you can add the switch plate onto the bottom of the chassis with the two screws to keep it in place make sure you place the on/off on the plate around the correct way.

STAGE 80 – THE BATTERY BOX AND ANTENNA TUBE (RB7-080)

What do you get?

Battery box

Antenna tube

The battery box supplies power to the radio system via the power switch.

Using normal AA batteries it is always advisable to replace these batteries regularly to avoid accidents. In this stage the battery box is connected to the red plug of the power switch. The antenna tube is added in a later stage.

The remaining decals from stage 78 can be added to the inside of all four wheels should you wish to do so, but it is only advisable to do this if you do not plan on running the model.

NEXT TIME

The next stages sees us add more of the radio system that controls the throttle and braking along with the fuel tank that will eventually hold and supply the fuel to your finished model. We also add the radio receiver box and start work on that beautiful iconic body. ■

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Race Ready out of the box

Hyper VS, HoBao's new generation line of 1:8 nitro and electric buggy, is designed and built to be a true Race Ready RTR right out of the box. Whether club racing is your ultimate aim or just some exciting off road fun, to ensure the new buggy was produced to the highest quality standards, HoBao moved its focus to material selection and manufacturing and production techniques. This was done to ensure that the buggy is robust enough to take the heavy knocks off road provides, while retaining the excellent fit and finishing touches that set the VS aside from other 1:8 RTR buggies.

The new Hyper VS features a new chassis design, new front and rear towers, new front and rear suspension arms and hubs and much more! Stable and easy to drive, along with great jump handling, the VS is the ideal step up for r/c fans looking for a little more from their 1:8 buggy.

What's more once you are bitten by the racing bug, HoBao have a wide selection of performance options and upgrades to take your VS to a whole new level and towards the winners circle!

FEATURES & SPECIFICATIONS

- 2.4ghz HoBao Radio system
 - Hobbywing 100Amp High Performance Waterproof Brushless System
 - Savox Heavy Duty Steering Servo
 - New Pre-painted bodyshell design
 - New Hard Anodised Chassis Design
 - New 4mm Front & 3mm Rear Towers
 - New Strengthened Front & Rear Arms
 - Large battery Tray with Velcro Straps
 - Enclosed Radio Box
 - 17mm Diameter Big Bore Threaded Shock
 - Rear Mud Guards
 - Full Ball Bearings
 - New Front C-Hub Assembly
 - Front Universal Driveshafts
 - Hard Anodised Aluminium Parts
 - Front & Rear Sway Bars
- (requires LiPo battery/charger to complete)



HYPER VS

HBVSE-S100BU Blue Body £349.99 RRP
HBVSE-S100R Red Body £349.99 RRP

Also available as a Rolling Chassis only allowing you to choose your own electronic equipment.

HBVSE Hyper VS EP Roller £189.99 RRP
(clear body, requires esc, servo, motor, battery and radio to complete)



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E&OE

lead by example

CML

CML PRODUCTS ARE AVAILABLE IN ALL GOOD MODEL & HOBBY SHOPS. CHECK OUR WEBSITE FOR FULL DETAILS
WWW.CMLDISTRIBUTION.CO.UK



The Hydro looks great in action. Check out the video by scanning the QR code bottom right

Batteries, Boats and Shows

A new range of low-cost LiPo batteries, a futuristic-looking high-speed boat and a popular show in Friedrichshafen dominate the latest LRP column

In this column, I want to tell you about our new RC brand Antix by LRP that hopefully will rough up the scene a bit. R&D has finished its work on the Deep Blue Hydro 330 2.4GHz High-Speed Racing boat and the LRP event team headed out to the Faszination Modellbau Friedrichshafen.

ANTIX BY LRP

You might have already discovered something new in the shelves of your local hobby shop or in the offerings of your favourite online store. We have proudly introduced our new RC brand, Antix by LRP that offers a great price-performance ratio – ideal for those on a budget but still want decent power and runtime. Our products profit from LRP's high standards, but come with a much more attractive pricing.

We will start off with the completely new budget LiPo line for RC beginners and hobby drivers. These LiPo packs are suited for all drivers looking for high power at an affordable price. The line includes 2S, 3S and 4S batteries, featured in a robust hardcase, making them perfect power sources for on- and off-road applications.

The packs are equipped with an US-style connector and are ready for a 45C load. The right choice for everybody who doesn't want to race complying with the official federations' rules, but just wants to have fun.



The Antix line-up comes in a range of voltages to suit different applications

HYDRO HITS THE WATER

Our aim with the LRP Deep Blue Hydro 330 2.4GHz High-Speed Racing Boat was to design the a user-friendly package for the beginner

that would be easy to handle. Even first-timers should be able to handle this little boat without the fear of losing control.

The LRP Deep Blue 330 Hydro already contains a LiPo battery and LiPo USB-charger, guaranteeing



The Hydro has the same excellent features as found in other boats in the LRP range



A small LiPo and USB charger is included in the box



With the hatch sealed shut correctly, the Hydro has been designed to be unsinkable

power and speed at a very reasonable price. The LiPo ensures more power throughout the runtime compared to a NiMH battery pack where the power tends to drop off towards the end of the run. The boat has quite unique look that is awesome in the water, almost like one of the formula one speed boats. It is fast and agile, yet is also suitable for small ponds and swimming pools where you can even have great duels with your friends.

Like previous LRP boats, the Hydro is also unsinkable when the hull is properly closed, as well as a battery warning system that enables you to get back to land before the battery runs flat. We will start with the already well-known blue/white/

red colour design, but there will be more great designs later.

FASZINATION MODELLBAU FRIEDRICHSHAFEN

For our LRP event team, it was time to head to three year's last large consumer hobby show in Germany. As always, the Faszination Modellbau Friedrichshafen in southern Germany had great attendance throughout the three days and we had our 120m square test track. The design with the black carpet and white markings in contrast to the blue wooden boards looked cool. The event team split the available time on the track between cool



The LRP team split their time between putting on demos with the latest products...



...and letting the public put the vehicles through their paces on the test track

Scan in the enclosed QR code to see the LRP Deep Blue Hydro 330 2.4GHz High-Speed Racing Boat in action.



action shows with our latest models and time slots where all visitors were given the chance to test drive selected models. The crew told me afterwards that they had about 200 test drivers per day, which is a really impressive number!

Before the fair, we had already informed our local shops which products we would feature in our action show. But still, some of the models were already sold out after only the second day. This goes to prove that the action show is extremely popular and ignites the fire to drive those cars yourself! ■

JURGEN LAUTENBACH
CEO LRP ELECTRONIC

WHAT: BRITISH OPEN WHERE: COTSWOLD CLASS: 1:10 & 1:8 NITRO ON-ROAD



THE BRITISH OPEN NITRO WARS

The Cotswold club hosted the British Open in 2015 to promote both 1:10 and 1:8 on-road nitro racing with many of the top drivers signed up to battle it out in the three classes

The eagerly anticipated British Open was arranged by both the BRCA 1:8 and 1:10 committees from their respective championships to help promote all the nitro on-road classes and crown champions over one weekend of racing.

The drivers booked in where the core of each individual section apart from some top 1:8 drivers who were travelling to the European Championships in Ettlingen, Germany. Out of a total of 68 drivers, the largest class was 1:8-scale with a total of 27 drivers with the 1:10 section providing the remaining entry with roughly an equal split between the 200mm and 220mm chassis types.



Dave Waters's bent chassis off his 220mm car

SPASHETT'S BACK

The main talking point within the 1:8 section was the return of RC legend David Spashett who was ready to put his new ARC/Picco combination to the test. This was David's first 1:8 race for five years and he certainly will not be behind when it comes to driving since he is currently racing 1:12 on-road cars with his Zen-Racing venture, so learning the car and engines would be the main priority. That said, being a previous World and European Champion made him a firm favourite to win on his debut with the package.

The main favourite for the 200mm crown was Alex Thurston who in the last 12 months is finally showing his potential and becoming a major threat at all national and international races. He now seems to have a settled race package of Serpent, OS engines, Contact Tires and Runner Time fuel allowing him to concentrate on the set-up and driving. Going to press, Alex won the British National Championship in the class to confirm he is a rising talent and proving starting at a very young age eventually pays dividends.



The busy pit area at the Cotswold club

QUALIFYING

The format was round by round qualification with the best two results from four rounds to count with any tied scores being decided on the driver's next best. With the majority of drivers present on Saturday, two rounds of qualification would start at 3pm with the remaining rounds on Sunday. Also two cars would bump-up from each sub final making the final a total of 12 cars.

200MM QUALIFYING

It was pre-event favourite Alex Thurston who won the first round ahead of Kai Grainger, John Zottl and Simon Wood. This then gave Alex zero points and halfway to overall TQ. In round two, it was Alex again who took a comfortable TQ to again win the round and in theory take the overall TQ overnight with John Zottl back in second with five points.

On Sunday, Alex maintained his dominance by securing another round win and take pole position



The podium in the 220mm class and a win for James Connolly

for the main final. The battle for second was up for grabs between Kai Grainger, Pete Hastings, John Zotti and Simon Wood. In round three, Pete recorded a second place to put him back in the game after two low finishes previously. Into the final round and it was Kai Grainger who recorded second place behind Matthew Cook who won the round after a incident for Alex Thurston. Pete Hastings finished third in the round to move up order and put him in with a good chance of a podium finish come the final.

QUALIFYING - 220MM			
POS	DRIVER	CHASSIS	POINTS
1	Alex Thurston	Serpent	0
2	Kai Grainger	Capricorn	4
3	Pete Hastings	Shepherd	5
4	John Zotti	Serpent	5
5	Matthew Cook	HB	6
6	Simon Wood	Xray	7
7	James Connolly	Serpent	8
8	Alex Morimer	Shepherd	10
9	Peter Spratley	Xray	11
10	Neil Wallace	Capricorn	12

220MM QUALIFYING

In round one it was James Connolly who set the pace with a clear win ahead of nearest rival Peter Hellawell and Chris O'Donoghue. In round two it was the same result at the top, which gave James the overnight TQ and Peter in second. With these two looking odds on for the front row of the final starting grid, the battle behind was very close between Chris O'Donoghue, Simon Smith and Richard Boulton.

Normal service resumed on Sunday with James winning the



The top three in 1:8 - Andy North, Karl Dransfield and Richard Hicklin

third round ahead of Peter, which confirmed the overall TQ honours in favour of James. Third in the round was Matthew Dambrine, which saw him in the mix for the third starting position. Into round four and it was James who did the clean sweep of wins with Chris O'Donoghue finishing in the runner-up to secure third position.

QUALIFYING - 220MM			
POS	DRIVER	CHASSIS	POINTS
1	James Connolly	Serpent	0
2	Peter Hellawell	Serpent	4
3	Chris O'Donoghue	Capricorn	5
4	Richard Boulton	Xray	7
5	Matthew Dambrine	Serpent	8
6	Simon Smith	Xray	8
7	Devandra Mahatma	Shepherd	9
8	Ryszard Kozakiewicz	Xray	12
9	Phil Edwards	Serpent/Sonic	12
10	Mark Newby	Xray	13

1:8 QUALIFYING

In the top heat of 1:8, it was David Spashett who set the early pace with a steady run to TQ the round from Karl Dransfield by six seconds. North who lost time with traffic finished third ahead of Andy Mollett. Richard Hicklin hit problems and Andrew Hastings did not start. In round two, it was Andy North who set TQ with a time two seconds slower than the previous rounds best, with Andrew Hastings second just 0.09 behind, with Karl Dransfield again recording a good finish. David Spashett however, had issues on track, but managed to finish the heat. This gave Andy North the overnight TQ with all to play for on Sunday.

Round three and it was Andrew



Andy North's winning car from the 1:8 class



Andy raced a Mugen MRX-5 to take the win...



...powered by a IDM Tuned engine

Hastings who took TQ in the round with a blistering run, but a tangle at the last corner cost him four seconds and a definite 21-lap run. Andy North and David Spashett had a very close battle with the former just edging it by 0.081 seconds. So the battle for overall TQ was between Andrew Hastings, Andy North and David Spashett who all had one win. With his previous rounds pace, it was Andrew Hastings who again dominated the heat and close out with the fastest time of the event, but just short of the magical 21 lapper. This therefore gave Andrew the overall TQ from Andy, David, Karl and Richard.

QUALIFYING - 1:8			
POS	DRIVER	CHASSIS	POINTS
1	Andrew Hastings	Shepherd	0
2	Andy North	Mugen	2
3	David Spashett	ARC	3
4	Karl Dransfield	Shepherd	5
5	Richard Hicklin	Serpent	7
6	Alex Morimer	Shepherd	9
7	Lee Chapman	Capricorn	11
8	Chris Shell	Shepherd	11
9	Paul Leach	Shepherd	12
10	Ian Billett	Capricorn	14



The 1:8 win went to your scribe and Mugen driver Andy North

200MM B FINAL

In the B final it was it was car two of Dan Jones who won with 66 laps, three laps clear of Devandra Mahatma and Jon Withington who in the end was only half a lap down from a bump-up place. The bump-ups into the A final was Dan Jones and Devandra Mahatma.

200MM A FINAL

The final started with Alex Thurston leading away from pole position

RACE REPORT

WHAT: BRITISH OPEN **WHERE:** COTSWOLD **CLASS:** 1:10 & 1:8 NITRO ON-ROAD



Former world champion David Spashett was racing at the British Open



David was racing the new ARC chassis that Zen-Racing distribute



A close-up of the two-speed transmission and clutch assembly

and extending his lead over Pete Hastings after problems for Kai Grainger. On lap three, Pete dropped down to third with Matthew Cook taking over the chase to catch Alex. On lap 48, Pete dropped out and this allowed Neil Wallace to briefly jump into third for four laps until James Connolly overtook him. Up front it was Alex who extended his lead and by the end it was three laps over James who passed Matthew in the closing stages after he suffered some incidents.



The A finalists in the 220mm class



Alex Thurston, James Connolly and Matthew Cook in 200mm

RESULT - 220MM A FINAL				
POS	DRIVER	CHASSIS	ENGINE	RESULT
1	James Connolly	Serpent	—	106 laps
2	Chris O'Donoghue	Capricorn	Tesla	99 laps
3	Simon Smith	Xray	Novarossi	96 laps
4	Peter Hellawell	Serpent	OS	95 laps
5	Devandra Mahatma	Shepherd	Sonic	92 laps
6	Mark Newby	Xray	Sonic	91 laps
7	Phil Edwards	Serpent	Sonic	89 laps
8	Ryszard Korakiewicz	Xray	Novarossi	88 laps
9	Matthew Dambine	Serpent	Novarossi	71 laps
10	Richard Boulton	Xray	OS	67 laps
11	Jim Beesley	Serpent	Sonic	51 laps
12	John Russell	Serpent	OS	32 laps

1:8 B FINAL

In the B final, it was Hayley Baker who came out on top by a clear lap from Keith Snell, so both drivers were promoted to the A final.

1:8 A FINAL

The A final started in grid order with Andrew Hastings extending his lead at the front over Andy North, who was gradually extending his lead over David Spashett and Karl Dransfield closely dicing for third position. At the second pit stop, it was David who lost time due to a blown glow plug, which was soon replaced and got him back into contention. But after a further 11 laps he was out due to an engine related problem. Up front, Andy North was on the tail of Andrew Hastings due to traffic issues and at this point the latter clipped the inside corner of the fast left hander that launched the car across the track that broke the rear wishbone. This gave Andy the lead by a clear two laps from Karl, who ran out of fuel coming



TQ in the 1:8 class went to Andrew Hastings

into the pits. After issues for Richard Hicklin with a stripped second gear that lost him some time, it was Alex Mortimer who bumped up into third position. In the end, it was Andy who won by a convincing five laps over Karl. Alex Mortimer took third, but was eventually disqualified for an oversize fuel tank. ■

RESULT - 200MM A FINAL				
POS	DRIVER	CHASSIS	ENGINE	RESULT
1	Alex Thurston	Serpent	OS	106 laps
2	James Connolly	Serpent	—	102 laps
3	Matthew Cook	HB	—	94 laps
4	Kai Grainger	Capricorn	—	94 laps
5	Devandra Mahatma	Shepherd	Sonic	89 laps
6	Neil Wallace	Capricorn	—	87 laps
7	Alex Mortimer	Shepherd	—	64 laps
8	Simon Wood	Xray	—	62 laps
9	John Zottl	Serpent	—	61 laps
10	Dan Jones	Serpent	Picco	60 laps
11	Peter Spratley	Xray	Orcan	59 laps
12	Pete Hastings	Shepherd	Orcan	48 laps

220MM B FINAL

In the B final, it was a very close race between the top three, but in the end it was John Russell who won the race with 60 laps ahead of Jim Beesley on 59 laps who had a fight with Mark Hepworth, but came out on top by six seconds. Therefore the bump-ups were John Russell and Jim Beesley.

220MM A FINAL

The A final started with James pulling out a convincing lead, but the first casualty was Peter Hellawell who lost some track time and re-joined down the order to start a recovery drive. In second it was a fight between Chris O'Donoghue and Richard Boulton. Up front it was James in cruise control mode as he continued to pull out a large gap. At the mid-race point it was Peter Hellawell who managed to pass Richard Boulton for position, but ran out of luck at the end when he lost third place to Simon Smith.

RESULT - 1:8 A FINAL				
POS	DRIVER	CHASSIS	ENGINE	RESULT
1	Andrew North	Mugen	Sirio	114 laps
2	Karl Dransfield	Shepherd	Sonic	109 laps
3	Richard Hicklin	Serpent	Sirio	93 laps
4	Chris Snell	Shepherd	OS Speed	63 laps
5	Hayley Baker	Serpent	OS Speed	57 laps
6	David Spashett	ARC	Picco	55 laps
7	Andrew Hastings	Shepherd	Sonic	47 laps
8	Ian Billett	Capricorn	OS Speed	37 laps
9	Paul Leach	Shepherd	OS Speed	33 laps
10	Lee Chapman	Capricorn	Novarossi	6 laps
11	Keith Snell	Motonic	OS Speed	DNS
12	Alex Mortimer	Shepherd	Novarossi	DQ



The top 12 drivers and A finalists in the 200mm class



The A finalists from the popular 1:8 class



Pro-Line Ford Raptor and Jeep Wrangler Rubicon Bodies

Yeti fans will be pleased to see that Pro-Line has released two new bodies for the chassis. The first is the Ford Raptor based on the full-size model that was designed for serious off-road abuse. The Raptor has a bold grill and racing-style fins in a body that is designed to fit around the stock Yeti cage with the driver and interior piece installed.

The second body is this customised Jeep Wrangler Rubicon! Jeeps are known around the world for their off-road capabilities and unique look, and this has been encapsulated with Pro-Line's scale version. The mean looking body comes complete with detailed grill, headlights and body moulding trim for that distinct Jeep look. Like the Ford Raptor option this fits around the stock Yeti cage with the driver and interior piece in place.

3454-00 Pro-Line Ford Raptor Body for Yeti
3452-00 Pro-Line Jeep Wrangler Rubicon Clear Body for Yeti

Available from: CML Distribution
Website: www.cmldistribution.co.uk
Contact: 01527 575349

JConcepts B5M/T5M/SC5M Four Hole Rear Ball-Stud Mount

The rear ball-stud mount is under a tremendous amount of stress in today's racing atmosphere so JConcepts has come up with this heavy-duty version. After many months of testing and race tuning there are a couple advancements given to the new mount. First, for the high-end chassis tuners, the mount has two new additional holes for camber gain adjustment. The standard holes remain for the all important stock settings but the newly offered holes allow an in-between setting as well as an evenly spaced fourth hole all the way inside. In addition, the mount also features a setting that allows the racer to change the orientation of the mount to either -2mm or +2mm of inner ball-stud height.

The durability in this mounting area has been put to the test with difficult race circuits and especially with the introduction of the T5M and the pending release of the SC5M. JConcepts has added thickness around the screw mounting holes, thickened the main connection "U-brace" and for twisting and bending resistance added a thick rib from the main body to the screw location boss.

#2427-1 JConcepts B5M, T5M, SC5M Four-Hole Rear Ball-Stud Mount - blue
#2427-2 JConcepts B5M, T5M, SC5M Four-Hole Rear Ball-Stud Mount - black

Available from: X-Factory UK
Website: www.xfactoryrc.co.uk
Contact: 01923 816636



Brilliant RC Fuel Gun

This is a new fuel gun from Brilliant RC that is made from high quality composite material. Thanks to the short front body and the ergonomic design of the handle, it's easier to refuel and the chances of mistakes are minimised. The optimised, extra short nozzle with integrated auto-stop ensures a maximum filling of the tank. An extra large intake makes it very easy to fill the 200cc reservoir of the gun, which also features easy to read volume markings down the side. The cap is fixed by a chain at the body of the fuel gun to prevent from losing it. At the cap and all other necessary points the fuel gun is sealed with high quality O-rings to prevent the gun from leaking. Included are two suitable stays to place the gun when not in use.



Available from: Shepherd Micro Racing
Website: www.team-shepherd.com
Contact: info@team-shepherd.com

Speedzone 8000mAh 100C LiPo Battery Packs

Speedzone has released the latest versions of their Peerless Series LiPo Packs. These packs come in standard 1S, 2S and 2S shorty dimensions and meet ROAR, EFRA, BRCA and IFMAR specs. Both the 1S and 2S packs are 8000mAh and weigh 158g and 330g respectively. The shorty pack is a 5200mAh pack with a weight of 222g. With the high mAh, these 100C packs offer higher run times without compromise to average voltage or resistance. All packs are hardcase packs with inboard 4mm connectors.

Available from: Speedzone
Website: www.speedzoneusa.com
Contact: sales@speedzoneusa.com



RC4WD Trail Finder 2 Truck Kit With Mojave II Body Set

RC4WD can now offer their Trail Finder 2 truck kit with Mojave II body option. The TF2 has a two-speed selectable transmission, 4WD drivetrain, bulletproof transfer case and quality metal components throughout. Every TF2 is compatible with a full range of option and performance parts designed to enhance the performance and add to the scale look of the only true scale 1:10 off-road truck. The key features include:

Centre mounted realistic 4x4 transfer case
Cast metal axles with locked differentials
True to scale leaf spring suspension
Highly detailed body with dropped bed and more
1.55 stamped steel beadlock wheels with lug nuts
Super grip high performance mud thrasher tyres
Realistic tube bumpers, rock rails and skid plate

Z-K0049 RC4WD Trail Finder 2 Truck Kit w/Mojave II Body Set

Available from: RC4WD
Website: www.rc4wd.com
Contact: rcrock@rc4wd.com

Custom designed for true-to-scale looks
Realistic billet aluminium Ladder frame chassis
Two-speed remote selectable transmission



HPI Crawler



er King RTR



RACE REPORT

WHAT: BRCA NATIONAL WHERE: WEST LONDON CLASS: 1:10 TOURING CAR



ELLIOTT WIN AND TITLE

The championship in the modified class went down to the wire as West London hosted the annual season finale, and it was Chris Grainger, Elliott Harper, Olly Jefferies and Colin Price who headed to Hillingdon to do battle

The fifth and final round of the 2015 BRCA touring car series took drivers to what is considered the home of UK touring cars, the West London Racing Centre. One of the longest established tracks in the country, West London would host the championship deciding battle in the modified class as the pro stock class was decided at the previous round at Halifax, but as usual the event also witnessed a well-supported 10.5T meeting.

FIVE INTO ONE

Five modified drivers had a shot at the national title prior to round five,

but Andy Moore would miss out on his chance due to his overseas racing commitments so it was Chris Grainger, Elliott Harper, Olly Jefferies and Colin Price that arrived in the capital with championship hopes still alive. The KO Grand Prix had acted as a suitable warm-up race for the final national round and that had seen a classic battle between Elliott Harper and Olly Jefferies. The Schumacher driver had come out on top at the GP, but the Xray of Olly looked well capable of taking the challenge to Elliott and at the national, this was the theme for practice on Saturday morning as the two swapped



Olly Jefferies had a frustrating final round as defending champ

top times in the three rounds of controlled practice.

The stock class of the championship was already won and the newly crowned champion Zak Finlay was absent so this left the battle for stock honours at West London between James Hart, Glenn Westwood and Lee Price.

QUALIFYING

An error by Olly Jefferies in round one of modified qualifying handed an easy win to Elliott Harper and that set the trend for day one. Elliott went on to take round two, but to keep himself in the hunt for TQ, Olly used a second set of new tyres for round three and won the round. But even at this early stage, Elliott looked to have a small edge. When he is not the fastest car on track you can guarantee Chris Grainger to be consistent and he was keeping himself in the frame with solid lap times albeit a little off Elliott and Olly at this point. With Zak Finlay absent, the stock class battle seemed to be between Glenn Westwood and James Hart with the rest of the field providing a support role. James's Schumacher looked good on the infield whereas Glenn appeared to have better top speed on the fast parts of the track. Due to an error by James in round two it was Chris Gunter that led overnight after three rounds, but when the drivers returned on Saturday morning Chris was pushed back to fourth. Setting the fastest time in round four was



Elliott Harper left West London with the biggest smile

enough to secure pole for the A final for James.

POS	DRIVER	POINTS	R1	R2	R3	R4	R5
1	James Hart	5	3	1	8	1	47
2	Glenn Westwood	7	2	47	1	4	5
3	Lee Price	7	1	3	15	3	3
4	Chris Gunter	8	6	5	2	45	1
5	Mark Wallace	10	7	2	3	5	48

Sunday morning in the modified class belonged to Chris Grainger. The two fastest times in round four and five was enough for the Team Associated to driver to leap-frog Olly Jefferies and line up second on the grid for the A final. Elsewhere in the top ten it was good see to Harley Eldridge lining up ninth just behind Dave Spashett, a superstar of the past and a very promising star of the future in Harley.

POS	DRIVER	TIE BREAK	POINTS	R1	R2	R3	R4	R5
1	Elliott Harper	20 laps 304.50	4	1	1	2	9	32
2	Chris Grainger	20 laps 305.96	4	2	4	3	1	1
3	Olly Jefferies	—	5	4	2	1	2	14
4	Colin Price	—	10	3	5	5	7	2
5	Paul Pinkney	—	12	6	3	34	3	20

FINALS

The stock A final was won by James Hart winning the second and third



The four fastest cars in modified TC 2016



Zak Smith did a great job for Team Associated in the modified class and ended up sixth in the championship

legs after Lee Price took the leg one win. Glenn Westwood was deflated after poor results in leg one and two, as first lap incidents saw him come off worse and he left West London slightly despondent after a strong showing in qualifying. In the B final

it was Gavin Clinch who took the win.

POS	QUAL	DRIVER	POINTS	R1	R2	R3
1	1	James Hart	2	2	1	1
2	3	Lee Price	3	1	2	2
3	4	Chris Gunter	6	3	3	3
4	6	Chris Clark	9	5	4	6
5	8	Tim Langdell	9	7	5	4
6	7	Nathan Wilson	11	6	6	5
7	5	Mark Wallace	13	4	9	9
8	9	Liam Hendy	14	9	7	7
9	10	Alex Brocklebank	16	8	8	8
10	2	Glenn Westwood	20	10	10	10

Elliott Harper completed his dominance of the modified class taking the first two legs of the A final and in doing so secured his first national touring car title. Like in qualifying, the places behind Elliott were contested by Olly Jefferies and Chris Grainger. On this occasion the latter had the upper hand and took second with Olly completing the podium.



Matt White, Alan Bickerstaff and David Spashett in modified qualifying

RACE REPORT

WHAT: BRITISH OPEN **WHERE:** COTSWOLD **CLASS:** 1:10 & 1:8 NITRO ON-ROAD

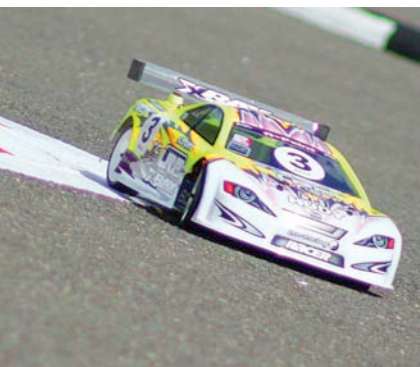


The final round of the national series took place in warm and dry conditions

RESULT – MODIFIED A FINAL									
POS	QUAL	DRIVER	POINTS	R1	R2	R3			
1	1	Elliott Harper	2	1	1	10			
2	2	Chris Grainger	3	2	2	1			
3	3	Olly Jefferies	5	3	6	2			
4	4	Colin Price	7	5	4	3			
5	6	Zak Smith	7	7	3	4			
6	5	Paul Pinkney	9	4	10	5			
7	8	David Spashett	12	8	5	7			
8	7	Matthew White	12	6	8	6			
9	9	Harley Eldridge (U17)	16	10	7	9			
10	10	Stefan Chodzynski	17	9	9	8			



Marcus Aske takes some kerb with his Xray



All the three for Olly - in qualifying, finals and the 2015 championship

2015 CHAMPIONS

For Elliott Harper, 2015 will go down as the season where he fulfilled his national potential. Always quick, Elliott had fallen at the last hurdle a couple time, but this season he made it over the finish line to secure

his first national touring car title. Not one driver really dominated the modified class in 2015, but a strong finish in the last two rounds saw Elliott bring home the crown for himself and Schumacher.

Of the regular championship protagonists, Elliott Harper is the youngest of the group, so maybe it's experience that wins UK national titles and Elliott needed a few years to find his feet. He came close in previous seasons driving for Tamiya and Team Durango, and this season he took a little while to score major wins with the Schumacher Mi5evo, but once in the winning groove he was able to put a successful championship campaign together. Defending that title won't be easy as the likes of Chris Grainger, Olly Jefferies and Andy Moore will undoubtedly raise their game for next season in an effort to snatch back the title, but for now Elliott can consider the national title in the bag and enjoy the spoils of victory. For the rest of the top three, Chris Grainger can consider 2015 as a major success taking the Team Associated TC6 to new performance levels and answering some of the critics that questioned his move to the American manufacturer. For Olly Jefferies winning the BTCC will be scant consolation in a season where he didn't seem to do a lot wrong. After round one he looked clear favourite to defend his 2014 title, but then he seemed struggle on tracks that did not seem to suit his Xray.

In the pro stock class things were more clean cut. Despite a spirited mid-season challenge from James Hart, the title looked to be heading to the reigning champion Zak Finlay



Elliott took TQ and the win at WLRC to be crowned the 2015 BRCA 1:10 Touring Car National Championship



Chris Grainger in action during the finals. Second place overall at the round ensured the runner-up spot in the championship



Damian Giddins hits the apex and takes the shortest route through the corner

early on. Zak was quick out of the box and notched up some early doors wins that cemented his title defence, securing the title at round four hosted by Halifax and so Zak sat out the final round of the series at West London. Like in previous years, with the exception of James Hart there seems to be a lack of consistency among the pro stock drivers. The class is meant to be

close, but our series does not seem to reflect this. Yes we have some quick stock drivers, but it's all too easy to predict the stock winner going in to a UK national. James and Zak had some good tussles, but to be honest there needs to be more drivers in the mix challenging for wins.

The pro stock championship saw some impressive performances through the season and the likes



The West London looking great for the season finale



The top three in modified at the meeting and in the overall series



The podium at West London in pro stock



Legend David Spashett back racing at West London

of Tim Langdell and Nathan Wilson were worthy of mention along with Michael Ball who not only supported the series through his MB Models business, but also managed a top ten place in the series as well.

THE CHAMPIONSHIP

The BRCA national touring car series is still the series most drivers aspire to winning. Its competitiveness and the fact it's not just a on-off meeting to decide the champion makes it one of the most respected

championships in Europe. You need to be quick, but you need to be quick at five different venues and often in different weather conditions.

As the season drew to a close, new faces were looking to take over the running of the section and the series, and this has to be good for the future of the series and expect next season to be a bumper year with

new ideas and incentives coming to the fore. One change already implemented is a driver vote for which track they want the series to visit, this may see new venues on the calendar for 2016. We are fortunate in the UK to have more good tracks than we have rounds of the series, so the thinking is let the drivers decide where

they want to race. For now 2016 seems a long way away, for many the immediate change now is now turning to carpet racing over the winter months, but come the spring expect to see our national contenders back out on tarmac testing for the forthcoming season as the national merry-go-round continues... ■



Two wins in the final two races saw Elliott claim his inaugural national title in the class

2015 BRCA TC CHAMPIONSHIP – MODIFIED

POS	DRIVER	POINTS	R1	R2	R3	R4	R5
1	Elliott Harper	449	149	149	146	150	150
2	Chris Grainger	448	147	150	149	149	149
3	Olly Jefferies	446	150	147	148	145	148
4	Colin Price	445	148	139	150	146	147
5	Andy Moore	441	146	148	141	147	0
6	Zak Smith	437	144	142	147	143	146
7	Kyle Branson	434	141	145	0	148	0
8	Stefan Chodzynski	434	143	146	144	144	141
9	Ben Cosgrove	431	145	141	145	139	135
10	Matthew White	423	139	135	134	141	143

2015 BRCA TC CHAMPIONSHIP – PRO STOCK

POS	DRIVER	POINTS	R1	R2	R3	R4	R5
1	Zak Finlay	450	150	150	149	150	0
2	James Hart	449	149	149	150	149	150
3	Chris Gunter	444	148	148	147	147	148
4	Lee Price	441	0	146	146	146	149
5	Mark Wallace	437	145	147	145	145	144
6	Glenn Westwood	433	147	145	0	0	141
7	Nathan Wilson	433	142	144	144	142	145
8	Tim Langdell	427	139	142	0	0	146
9	Chris Clark	426	0	138	0	141	147
10	Michael Ball	424	141	134	140	143	0

Did We Mention

Tamiya continue their long line of scale RC vehicles with the Volkswagen Amarok, this time on the CC-01 chassis



Earlier in 2015 Tamiya released the VW Amarok on the WT-01 chassis at the Nuremberg Toy Fair. It was received with mixed emotions – it was very much a 'take it or leave it' model. The WT-01 Amarok had shorter width wishbones than the previous monster truck iteration of the chassis to give it a more scale look. Coupled with the extra fenders on the body it did look OK although a little goofy. If you are a member of the Tamiya Club forum you may have seen one members reimagining of the body shell on a CR-01 chassis and that looks great. It was also noted that the body had multiple mounting points and was presumed to be coming out on more chassis versions and as predicted on the forum they were right!

THE FUTURE IS NOW

Shortly after this sitting in the Racer office was the CC-01 version. The CC-01 could probably be renamed BC-01 as it feels like it has been around for many years! We may be being a bit unfair to the CC-01 as even with old age it still hangs out with the big boys, but isn't as capable of some of the young

It's A Diesel?



SPEC: 4WD CARBON-REINFORCED FIBREGLASS CHASSIS **CLASS:** 1:10 ON-ROAD **COST:** £55.95

whippersnapper chassis on offer. That said this chassis is the one that many young RC designers have cut their teeth upon and gone on to build amazing models for different companies.

Inherently the CC-01 is a really simple to build chassis as the main tub is moulded in the style of a twin rail chassis frame. The gearbox and motor are the first things to be fitted into the model along with the counter gear and spur gear. The differential is the traditional Tamiya three-gear diff, and we would advise you to use some heavy weight grease in this should you wish to take the model off-road to aid traction. However, should you want it to be an all rounder using the kit grease will be more than adequate. As always it best to fit some bearings at the start of the build to save yourself a bit of hassle and order a pack before you get started.

REALISM GETS REAL

A counter gear in the gearbox provides drive to the rear. This works the same way as a transfer box in a full-size 4WD vehicle. Whilst the front-end uses conventional driveshafts from a central differential to the steering hubs on the dual wishbone, the rear utilises a four-point link system and a rear beam axle that houses another smaller three gear differential. Tamiya provide you with the option at this point to have the diff full locked to enhance the off-road ability or leave it with the differential in place, which allows a much reduced turning circle when used out in a car park or street. You can always change your mind later and swap the system around to the terrain in which you are driving.

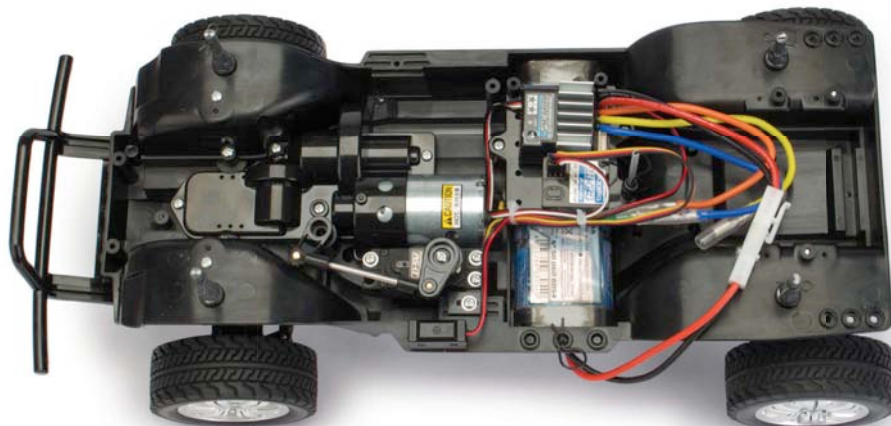
WHICH WHEELBASE?

As we mentioned, earlier the CC-01 has been the driving force behind many models and as such you can change the length of the wheelbase to suit the body you will be building it on. This is simply set by positioning the four-link rear-end onto one of the two optional mounting positions. Please note that the driveshaft for the shortest wheelbase option is not provided and would have to be sourced if you wished to use the chassis on a shorter body later on in its life.

The four-link suspension is a little bit over the top as the lower arms are hugely oversized and have several square edges on which your model could get hung on whilst out on the trails. We suggest you shape these harsh corners with a modelling knife and a bit of light sanding. It doesn't take much to sort these out and your model will be much more capable on the rough stuff afterwards.

PARTS GALORE

The CC-01 comes equipped with Tamiya's CVA shocks that have a plastic body that are simple to build



We used a mix of electrical items in the Amarok



Tamiya electronic speed control and Acoms 2.4GHz receiver



The underside of the CC-01 is very busy



The moulded wheel wells add to the scale look



A simple clip and moulding holds the battery in place



The four-point link system with beam axle

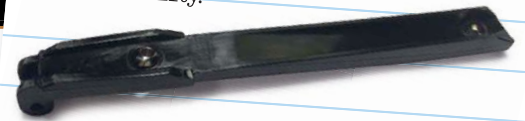


The gear reduction system



Racer Tips

Shape the rear link arms for better off-road ability.



The component parts of the moulded oil-filled shocks



A completed shock. Plastic clips are used to set the ride height



Threaded rods are used for the steering linkages



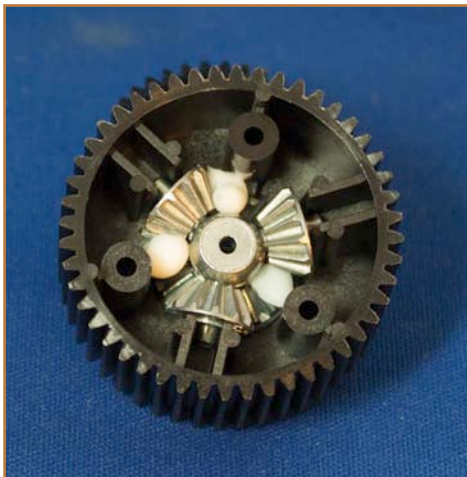
Some of the gearbox internals



The rear axle that can be set-up as an active diff or locked up



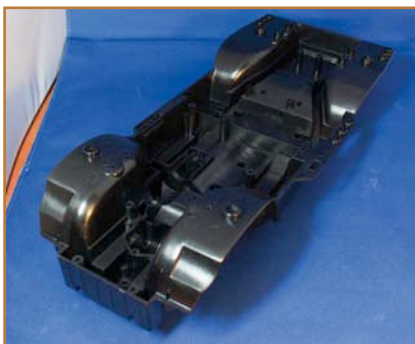
The front suspension begins to take shape



Inside the front diff with the three gears on show



The kit tyres work well on most surfaces and are very durable



This is the CC-01 tub that provides a basis for the suspension and drivetrain



Power is provided by a standard Tamiya silver can motor

and require very little maintenance. The kit oil is a pretty light so you may want to experiment on different weights of shock oils. However, the pistons are fixed in size so these cannot be adjusted. The steering of the CC-01 has always been criticised a little by the hard-core modeller. It uses a plastic shaft mechanism, which passes through the chassis to the dual crank arms. This style of system does tend to give a fair amount of play, and this is fine if you are just bashing with the truck, but more experienced modellers do not like the vague feel that it offers. Luckily the CC-01 has had many manufacturers offer aftermarket hop-up parts so there is an absolutely massive range of parts to choose from including a steering upgrade kit. Gmade, Junfac, 3Racing and Radshape RC offer their own parts for this kit. Tamiya also offer a few hop-up parts as well, so this kit is truly spoilt for choice.

EVERYTHING IN BETWEEN

The rest of the build is pretty straightforward, the radio tray forms the housing for the battery whilst motive power is provided by a standard Tamiya silver can motor. Matching the silver can motor is one of Tamiya's current TBLE-02s speed controls that allows you to run a brushless motor as well as giving you the option to run LiPo if you desire. There is plenty of space to run the wiring and several unused posts so you can have a neat and tidy install using a few small cable ties for the wiring of the servo and speed control. We used an Acoms AS-17 for the steering, although a metal-g geared servo would be an excellent upgrade in the future should you want to take it out on the rougher terrain.

TIME TO PUT THAT BODY TO BED

We alluded earlier to the body and it is another finely crafted piece from the master modellers at Tamiya. This body came with the WT-01 chassis so has the extra arch pieces moulded in place these are just cut away on this version leaving the original Amarak wheel arches. When test fitting to the chassis we realized how long the body actually is, as there is a massive overhang thanks to the rear bed – something you need to bear in mind when out on the trails as it could get caught up. We painted the body with Pactra Inca Gold, this colour is beautiful and sprays translucent so you need to back it with black to finish it off. There are a few places like the grill and rear bumper that need finishing in black too and they are easy to mask off. The sticker sheet

SPEC: 4WD CARBON-REINFORCED FIBREGLASS CHASSIS **CLASS:** 1:10 ON-ROAD **COST:** £55.95

ON TEST



With a battery charged it was out to the local park for a blast with the CC-01. As expected the standard silver can motor is fairly quick for this type of kit, although it won't satisfy the crazy brushless speed freaks, but you would quickly lose sight of the model if you have enough distance, and high speed isn't what this model is designed for. Punching the throttle you can get the wheels to break traction and rooster tails can be seen over the dusty and loose dirt. For the record we ran the kit without the diff locker in. The oil-filled shocks happily soak up the bumps and jumps, unlike its spring only dampened cousins the ride of the CC-01 looks more composed as it doesn't tend to bounce around. On the rough stuff and grass the lack of locking in the differentials soon became apparent as one wheel breaks traction the rear quickly follows, and one side will just spin which means the model quickly comes to a halt requiring a helping hand to get it back into action. When we changed the rear diff gears with the locks the off-road capability increased immensely. With only having the rear diff locked the turning circle wasn't as compromised as having both done. It was easy to get across longer grass and even rough inclines are easily accomplished. If you do plan on taking the vehicle off-road more often you may want to swap the tyres for a softer compound as the kit tyres tend to be fairly hard as they need to offer the best of both worlds.

The front bumper soaks up the knocks and scraps that are a given with off-road running and also stops the body from sustaining too much damage. The steering is average when out on a smooth hard surface like tarmac but for us needs a little work. Perhaps a ball race set and some little tweaks would improve the feeling, but do not let this put you off as it's only a minor niggle on an otherwise excellent chassis. Having driven this chassis before with a hard body it was clear to see the difference in weight, clearly evident in its climbing ability as the added weight of an hard body helps with traction so the CC-01 Amarok could probably be improved with some added weight....

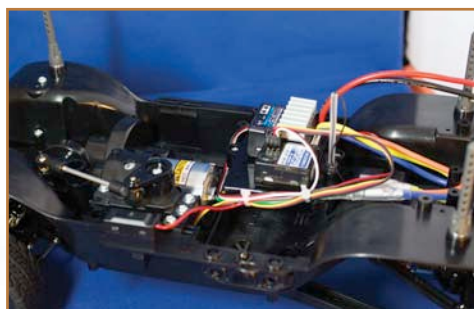
As we mentioned in the review the rear trailing arms need a little tweaking to improve the clearance over rocks and one thing we recommend you do after having the chassis get caught a couple of times. Surprisingly our fears about the rear body overhang being an issue were unfounded during our test, although we did hear it hit down a couple of times. It would have been nice if there was a little recess in the bed rather than the flat rear design, but this again is only a minor gripe. So if you want a good all rounder, this kit is perfect and if you want a capable off-roader swap the kit motor out for a much slower version around the 50-turn mark. This will give you much more control when out on the trails as well as a better scale speed. It really is a 'jack of all trades' car.

“Our fears about the rear body overhang being an issue were unfounded during our test”





The same wheels off the Honda CRV are used for the VW Amarok



Cable ties were used to keep the wires neat and out of the way

is the same as the WT-01 that features VW race style checkerboard patterns that you can add to this model, but we chose to go with a street look so left them off. Even going this route there are still many number of stickers that need applying to finish the body off. A heat gun helps to form the stickers around shapes especially the door handles and rear lights. Careful cutting and time taken at this stage will leave you with a beautifully finished body. Admittedly we did rush a little bit so the model could do with a little sanding around the arches to clean them up. As the Pactra Inca Gold is a hard colour to replicate for the mirrors we cheated and opted to go with a matt black look that also saved a lot of time and in use these will probably get scratched and damaged first. Sometimes the CC-01 front bumper can look a little goofy as they are usually designed to be much bigger than the model its sitting on but in this case the kit front bumper is really suited to the shape of the Amarok and the body fits snugly behind it.

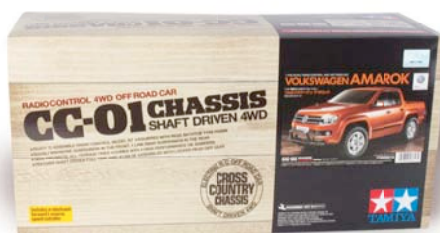
WHEELIE BAD CHOICE

The body posts are one of the last things to go on the build and after fitting the body we like to trim them down for the best look, but do be careful in doing this. With a little bit of over zealousness we chopped one of our body posts down a little too far so it may fail in the future with pushing the body clips in and out. Even experienced modellers get things wrong from time to time - we are only

human. One other thing we would like to mention is the choice of wheels for this model. They originally came on the Honda CRV model (thanks Iconic RC members for the info), but in our mind they are the wrong choice when there are many nicer wheels on offer. Whether this was a licensing decision from VW or a design choice from Tamiya we are not sure, but these are something that we will definitely change in the future.

QUICK, SIMPLE AND FUN

These are the three elements we would use when it comes to the CC-01 kit - quick to build, simple to work on and offers lots of driving fun. The Amarok body looks great, but please Tamiya can we have the CR-01 version too? With the huge amount of hop-ups and bashers that love this chassis you really cant go wrong. It's a great all rounder and a perfect vehicle to keep in the boot of your car for those five minutes of fun when you need a little break. And of course it can go pretty much anywhere. ■



SPECIFICATION

Model:	Tamiya CC-01 Volkswagen Amarok
Scale:	1:10
Class:	Off-Road
Application:	Fun
Format:	Kit
Power:	Electric
Chassis:	Moulded Plastic
Drivetrain:	4WD
Transmission:	Shaft/Gear
Differentials:	Gear
Shocks:	Oil-filled/plastic bodies
Bearings/Bushes:	Bushings

TECHNICAL DATA

Length:	465mm
Width:	215mm
Height:	170mm
Wheelbase:	267mm
Weight:	1510g

WHAT WE USED - Electric Kit

TRANSMITTER:	ACOMS TECHNIPLUS 2.4GHZ STICK
RECEIVER:	ACOMS GR-24 2.4GHZ
SERVO:	ACOMS AS-17
SPEED CONTROL:	TAMIYA TBLE-02S (KIT)
MOTOR:	TAMIYA SILVER CAN (KIT)
BATTERY:	CARSON 2300MAH NIMH

OPTIONAL PARTS

- 54625 CC-01 CHASSIS LOWERING KIT
- 54665 CC-01 ALUMINIUM MOTOR MOUNT
- 54666 CC-01 BARREL SPRING SET
- 54608 CC-01 ASSEMBLY UNIVERSAL SHAFT
- 54519 CC-01 STROKE EXTENSION LINK

VERDICT

➕ Beautifully detailed body
Adjustable wheelbase

➖ Wheels

CONTACT

The Hobby Company Ltd
Garforth Place
Knowhill
Milton Keynes
Bucks
MK5 8PG

Tel: 01908 605686

Fax: 01908 605666

Website: www.hobbyco.net
www.tamiya.com

We think the CC-01-based Amarok is the best one yet!

SUMMARY

Although the CC-01 chassis maybe long in the tooth, the up-to-date styling of the VW Amarok really brings the full-size truck to life in miniature in both its looks and driving ability.

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King of the



It may not set your heart racing with its outright pace, but crawling offers a great challenge to navigate rocks or get over a series of tree roots in the woods. And the updated Crawler King looks great with its Ford SVT Raptor body with the added benefit of 2.4GHz radio and waterproof components



Mountains



SPEC: 4WD MOULDED PLASTIC CHASSIS **CLASS:** OFF-ROAD FUN **COST:** £229.99



The box is an accurate replica of what you get inside



Plastic moulded shocks are oil-filled



The battery is located over the front wheels for traction



The HPI Crawler King comes as an RTR with a battery included



The narrow chassis with the four linkages extending out from the centre to the front and rear axles



The TVP chassis uses a moulded plate on each side

The discipline of driving an RC rock crawler may not at first glance be everyone's cup of tea. They're not fast, they don't jump and you can't really race them. Right? Wrong! Rock crawlers have become increasingly more appealing and its popularity is on the way up. Why? With their scale appearance, challenging driving style, and the ability to personalise and add scale detail, it's hardly surprising it's one of the biggest growth sectors in our great hobby.

With this in mind HPI realised their highly popular Wheelie King chassis platform could be adapted from its stunt truck roots into the highly capable Crawler King. By redistributing the chassis weight, adding crawler specific electronics, super soft tyres and a fully licenced Ford Raptor body, it's clear to us here at Racer that HPI's new Crawler King has what it takes to be King of the Mountains.

A GREAT CHASSIS

HPI has great experience with the TVP (Twin Vertical Plate) chassis concept that has graced not only all of the very successful Savage line of nitro monster trucks, but also the very successful Wheelie King platform that the Crawler King shares its DNA with. The Crawler King uses the same concept, but has gone a step further in terms of scale looks. The 3.5mm plastic side plates have a tube frame design and are finished in matt black. At a glance the chassis looks just like the real thing.

As its name would suggest the Crawler King has a "Crawler" optimised chassis layout. The heaviest single item is the 7.2V battery this has been mounted in-between the chassis plates at the front and above the front axle. The battery sits within a plastic box that has a hinged door at the front, and this clips firmly into place, assuring the pack does not eject itself out the front of the truck as it

bumps over rocks.

The speed control and on/off switch sits on top of the battery box, and this will help keep them out of harm's way when running in wet or muddy conditions.

The centre transmission is mounted in between the chassis plates just in front of the speed control. A small plastic roll bar is included to stop the motor from being damaged.

The lighter radio parts are mounted at the back of the chassis. These being the steering servo and the receiver, again both are mounted high up. The receiver is mounted in a small waterproof box for even more protection.

A small rear bumper has been incorporated into the rear section of the chassis, but is not really going to help in the event of a crash. The lack of bumpers on the Crawler King is no doubt because HPI wanted to minimise both front and rear overhang, thus

Racer Tips

In our testing we noticed the body rubbing on the tyres so as we didn't want to cut the lovely Ford body, we instead raised the body posts up to lift the body clear of the tyres.



HPI's SC-3swp waterproof speed control works well, but lacks a drag brake function for ultimate crawling performance



Crawlers require high wind motors so HPI include a 55T brushed model



Unlike other crawlers, HPI places the SF-10w waterproof servo up high in the safety of the chassis



The Plasma NiMH battery slides in from the front of the chassis



Beadlock-like matt black wheels support HPI's own super soft white compound Rover tyres

"We really enjoyed our time with the highly capable Crawler King and can't wait to get back out again for some more crawling action."

insuring the first thing to hit any rocks are the super grippy tyres.

Solid adjustable body mounts are included; these are mounted onto the front and rear shock mounts.

HIGH STEERING

HPI has come up with a very clever solution to the steering linkage. Because the front axle can move through some extreme angles, the steering linkage needed to be able to cope with the job of keeping the front wheels pointing in the right direction. The easy and traditional route would have been to mount the servo on the front axle, but HPI has mounted the servo high up in the chassis out of harm's way. A series of linkages and a bell crank transmits the servo inputs down to the front wheels. As the axle moves through its arc there is almost no detectable unwanted steering movement. Very clever and well thought out. A

plastic "drag" link has been used to connect front and rear pairs of wheels together. The rear item is fixed to the axle casing, we are sure it would be easy to convert the Crawler King to four wheel steering should you feel you want the extra turning ability. We however were happy to leave this standard for our review.

UNIQUE MULTI-LINK SUSPENSION

The front and rear suspension parts are the same. The Crawler King employs a unique multi-link suspension system that gives the truck a real rock crawler look. Two fixed length lower alloy links are fitted onto each axle casing. There are a few optional mounting positions for the lower link that to be honest are a little redundant as we didn't really find the need to move the links within our testing. The upper V link is designed to centre



Linkages from the servo connect the steering to the front wheels

the axles under the chassis and stop them from wondering from side to side. At the tip of the V link there is a ball that allows the axle case to pivot; this helps the axle to lift a wheel over an object. Plastic bodied oil-filled 120mm long shocks are mounted on all four corners. Black springs are installed and spring packers are also included to help in setting ride height. The shock oil is light at around 35 weight.

Just playing with the Crawler King on the bench was a joy as the suspension is supple, with an astonishing 17.7cm of single wheel articulation the Crawler King should be more than capable of living up to its name.

POWER AND DELIVERY

The standard HPI 55-turn 540 brushed motor sits on top of the centre transmission, and this drives a steel 21-tooth pinion that in turn drives a plastic



ON TEST

As the Crawler King is supplied fully ready to run it was only a matter of plugging in the included wall charger into the supplied 2000mAh 7.2V power pack. The down side is that the charger takes six hours to fully charge the pack. Once charged the pack was inserted into the quick release holder, and this can be done with the body in place. After a quick check of the radio, it was time to see how good a job HPI has done.

With a gear ratio of 23.3:1 and a 55-turn motor, the Crawler King is no rocket ship; with a top speed of normal walking pace. In standard trim the power is just right for the garden or indoors and there is also the benefit that run times are very long at about 45-minutes.

If driving on grass the Crawler King's steering was compromised by the locked differentials. This is to be expected and is only a minor issue for the gain in traction the set up affords once the Crawler King heads towards the rocks.

With its super supple suspension and grippy tyres there is not much that can stand in the way of this capable little truck. The minimal overhang at both ends really helped with attacking a vertical rock face. Once the front or rear tyres made contact with the rocks the axle would lift cleanly up and over the obstacle with little or no effort. The weight balance has been designed to be towards the front to add traction and also minimise the chances of the truck flipping backwards when climbing steep inclines.

With the very wet weather we have been having over the last few months we took comfort in knowing the Crawler King is

waterproof. We could drive the truck in over 12cm of deep water before any electrics got wet. Needless to say try to keep your electronics as dry as possible, there's no point tempting fate! The HPI SC-3swp had great slow speed control and was very linear, making it possible to move over rocks steadily. This looked super cool as we could see the massive axle articulation. On steep downhill sections we really missed a drag brake function on the speed control. The centre of the axle's cases (diff housing) sits around 45mm above the ground helping to minimise the Crawler King from getting "hung up" on objects. We did manage to "pop" a wheelie or two over some objects, but overall the Crawler King's front heavy balance point help to keep the front-end planted.





90-tooth spur gear and gives a crawler friendly 23.39:1 ratio. This can be dropped to an even lower 26.71:1 should you want even more climbing power. The spur and pinion are protected by a plastic cover that is held in place by two body clips. The sealed plastic gearbox case holds a combination of plastic gears and steel shafts. The whole transmission rotates on ball races.

Plastic sliding universal driveshafts direct the power to both axles that are also fully ball raced. As the Crawler King is all about traction and climbing HPI has opted to install solid locked diffs instead of active geared items. Steel driveshafts take the power out to the wheels via 12mm plastic hex drive nuts.

The whole transmission is very obviously crawler focused and should work well out on the trails. Should you feel you want even more torque HPI have an optional reduction gear box (#87634 Reductions Gear Box Set) that will drop the ratio to a whopping 174:1 after its installation.

WHEELS TYRES AND BODY

Topping off the Crawler King's chassis is a fully licenced Ford Raptor body, and this has been finished off in bright red and has some cool pre-installed decals to further add to the Crawler King's scale appeal and detail. HPI has also added a vintage Ford Bronco (#113225) to its Crawler King range should the stunning Raptor not be to your taste. Finishing off the Crawler King are some awesome matt black eight-spoke off-road beadlock-inspired wheels, these are wrapped in HPI's super soft "white" compound Rover tyres. Their unique tread pattern and soft foam inserts will without doubt generate a vice like grip on the most aggressive of terrain.

55 IS PLENTY

As the Crawler King has been supplied in a Ready-To-Run (RTR) format the truck comes fully equipped with radio. The 2.4GHz TF-11 transmitter is a steerwheel unit featuring trim adjustment on both steering and throttle channels. An added bonus is that the steering dual rate is also adjustable and this enables the owner to tone down the overall amount of steering lock.

A RF-11 2.4GHz standard sized two-channel receiver catches the radio waves from the transmitter. This converts transmitter inputs into precise servo controls. The SF-10w waterproof steering servo provided is HPI's own branded make and worked perfectly throughout the review.



At 2000mAh capacity, the HPI Plasma offers plenty of runtime in the Crawler King

A mains slow charger is included in the box



HPI include their own TF-11 radio that allows the overall steering lock to be limited



HPI kindly supply four AAs for the transmitter

SPEC: 4WD MOULDED PLASTIC CHASSIS **CLASS:** OFF-ROAD FUN **COST:** £229.99



Telecopic centre driveshafts allow for incredible suspension articulation



The rear axle of the Crawler King hides a gear diff in the centre moulding called the pumpkin



SPECIFICATION

Model:	HPI Crawler King 4x4 RTR
	Ford Raptor
Scale:	1:10
Class:	Off-road
Application:	Fun
Format:	RTR
Power:	Electric
Chassis:	Plastic
Drivetrain:	Shaft
Transmission:	4WD
Differentials:	Gear
Shocks:	Oil-filled
Bearings/Bushes:	Bearings

TECHNICAL DATA

Length:	432mm
Width:	297mm
Height:	254mm
Wheelbase:	239mm

WHAT WE USED - Electric Kit

TRANSMITTER:	HPI TF-11 2.4GHZ STEERWHEEL (KIT)
RECEIVER:	HPI RF-11 2.4GHZ (KIT)
SERVO:	HPI SF-10W WATERPROOF (KIT)
MOTOR:	HPI SATURN 55T CRAWLER BRUSHED (KIT)
SPEED CONTROL:	HPI SC-3SWP (KIT)
BATTERY:	HPI PLAZMA 2000MAH 7.2V NiCD (KIT)

OPTIONAL PARTS

- #87634 REDUCTION GEAR BOX SET
- #88055 ALUMINIUM WIDE HEX HUB 12MM
- #6590 SPRING 14X80X1.17 COILS
- #113230 1973 FORD BRONCO PAINTED BODY
- #4894 MUD THRASHER TYRES
- #3213 ROCK 8 BEADLOCK WHEEL CHROME

VERDICT

- ➕ Scale looks and great performance with licenced body shell
Super long run times
Waterproof electrics
- ➖ Body rubs at full suspension articulation

RACER RATING

★★★★★

CONTACT

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21 William Nadin Way
Swadlincote
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DE11 0BB

Tel: 01283 229400
Fax: 01283 552713
E-mail: customerservices@hpiracing.co.uk
Website: www.hpieurope.com

◀ The Saturn 55T Crawler motor may sound a little tame, but in reality has more than enough torque to climb over almost an object with ease. To control the motor HPI has used its own brand SC-3swp – this is a great little unit that uses small jumpers to set the speed control's functions. The SC-3swp is LiPo ready and also has reverse lock out.

A Plasma 2000mAh 7.2-volt NiCd battery and wall charger has been supplied and both have Tamiya-style connectors fitted.

Lastly HPI has included some spare parts and a pack of four AA batteries for the transmitter to round off the package nicely. ■

SUMMARY

The HPI Crawler King has it all coming Ready-To-Run out of the box. It's scale fully licenced Ford SVT Raptor body will appeal to rock crawler fans as will its performance. The super supple suspension has more than enough articulation to keep even the most diehard enthusiasts happy. Lastly the scale potential is almost unlimited. All in all, a very well rounded package at a great price point that would suit anyone looking to get a scale rig.

RPM Rock Sliders for the Axial SCX10

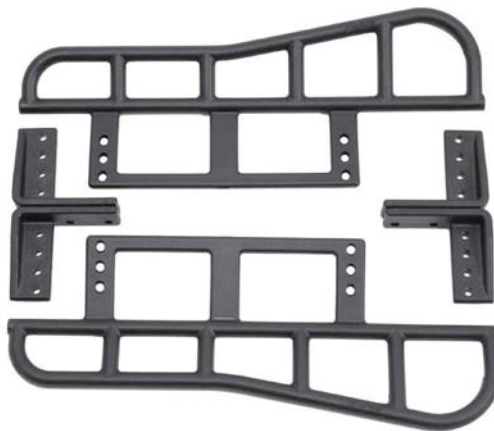
RPM Rock Sliders start with all-new frame-rail mounts that use both the stock screw mount position at the four-link upper bolts as well as the inner screw holes for the frame brace. This doubles the support for the mounts to help eliminate much of the flex that the stock sliders exhibit. RPM's frame-rail mounts are L-shaped in design with added support ribs, further stabilising the base support structure of our Rock Sliders.

These Rock Sliders are designed to resemble full-sized 2" diameter tubes, yet are moulded solid with built-in kick out at the rear wheel, helping to guide your ride through turns normally too tight to manoeuvre without catching the rear tire or the bed section of your body. Each RPM Rock Slider is arched upward at 20-degrees to eliminate ground clearance issues is one of the only sliders available that has vertical as well as lateral adjustments.

RPM Rock Sliders are designed for all versions of Axial's SC with a minimum wheelbase of 12" (305mm). Shorter version may encounter interference issues with the rear tyres.

#73452 RPM Rock Sliders for the Axial SCX10

Available from: CML Distribution
Website: www.cmldistribution.co.uk
Contact: 01527 575349



RC4WD Truck Mouse Pad

For those of you who want a constant reminder of the outdoors and RC, then check out RC4WD's Truck Mouse Pad. Made from 3mm thick polyester fabric, this is a nice way to show off your love of RC at your desk either at home or at work.

Z-L0075 RC4WD Truck Mouse Pad

Available from: RC4WD
Website: www.rc4wd.com
Contact: rcrock@rc4wd.com



RC4WD 1:8 Warn Zeon 10 Winch

If you are looking to add some extras to your scale rig, then look no further than this stunning Warn Zeon 10 Winch. It is CNC machined from billet aluminium and includes a working spring loaded Warn hook and synthetic winch rope. It comes highly detailed with full Warn decals and can operate on a 3S LiPo with a voltage range of 6 to 11.1V. The winch can be easily rebuildable and uses the same mounting locations as the Bulldog winch. Bear in mind the load limits of this unit, which are 5.4kg for a dead lift or 8.1kg for a rolling drag.

Z-E0069 RC4WD 1:8 Warn Zeon 10 Winch

Available from: RC4WD
Website: www.rc4wd.com
Contact: rcrock@rc4wd.com



Axial 2015 Ram 2500 Power Wagon Body

The Axial Ram Power Wagon body is modelled on the toughest civilian 4x4 truck on the planet. The beautiful two-piece body can be split and used with the SCX10 Roll Cage Flat Bed Set (AX80046 - not included). The details in the front grill and both bumpers really set this vehicle apart. The body is officially licensed and comes with pre-cut decals, window masks and headlight buckets (LED lights not included).



AX31132 Axial 2015 Ram 2500 Power Wagon® Body - .040" (clear)

Available from: Hobbico in the UK
Website: www.axialracing.com
Contact: 0845 459 1966

Xray XI Graphite Chassis and Rear Pod Lower Plate

This is a new 2mm thick chassis and rear pod lower plate that were developed to provide the best possible traction for low-traction conditions. The thinner graphite material allows the car to flex more, which generates more overall traction.



#371005 Xray XI Graphite Chassis 2mm
 #371149 Xray XI Graphite Rear Pod Lower Plate 2mm

Available from: RC Disco
Website: www.rcdisco.com
Contact: sales@rcdisco.com

Tekno 17mm Wheel Wrench and Shock Cap Tool

Tekno are proud to put their own spin on the wheel wrench with a unique handle design that is comfortable in the hand and provides much more leverage versus traditional designs. This is accomplished with a longer handle that has ergonomic chamfering throughout to deliver the best wheel wrench you will ever get your hands on.

The wrench doubles as a shock tool to help aid in the removal and installation of the Tekno RC shock caps. Just flip the wrench over and the oval slot on the top fits perfectly over a shock mounting boss on any of their shock caps. There is also laser etched markings and a two tone anodized finish that help make the tool look good and easy to spot among the many other wheel wrenches on the market.



TKR1116 Tekno 17mm Wheel Wrench and Shock Cap Tool £19.99

Available from: X-Factory UK
Website: www.xfactoryrc.co.uk
Contact: 01923 816636

POWER LIPO PACKS +++ HIGH-POWER LIPO



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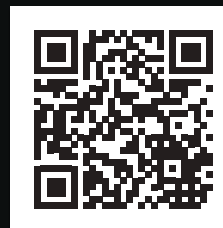


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ANTIX
BY LRP



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Coming Up

4 February 2016



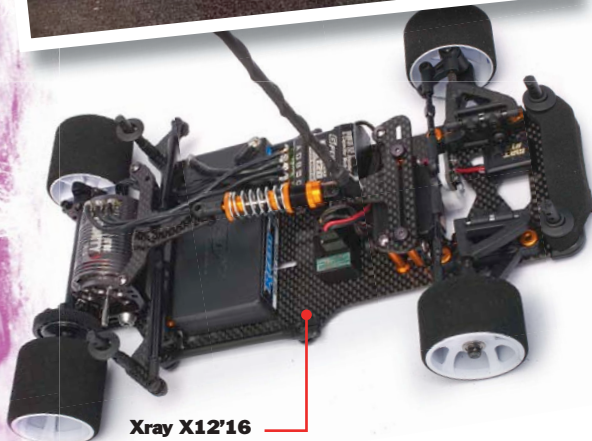
ECX Outburst

– bikes are back in Racer and cheaper than ever with ECX's new Outburst 1:14-scale model. The cute little bike comes Ready-To-Run out of the box with radio, batteries and charger all included in the package. Aided by a gyro in the rear wheel, the Outburst aims to suit the first-time buyer so should be easy to operate, lots of fun and quick enough to keep interest up. The editor didn't want to miss testing the bike so don't miss next month's issue to find out his thoughts...



Crewe Cut

– the second round of the BRCA 1:12 National Championships would take place at Crewe in Cheshire. With Ollie Jefferies taking two wins in 10.5T stock and open modified at round one in West Kent, the likes of David Spashett, Mark Stiles, Chris Kerswell, Andy Murray and Adam Walker-Catchpole would be looking to get one over the Xray driver who was continuing in the 2015-16 series where he left off last season.



Xray X12'16

– the 2016 version of the X12 is Xray's sixth incarnation of their 1:12-scale platform. On the track the car is already the most successful model to date with the likes of Alex Hagberg from Sweden and the UK's own Ollie Jefferies dominating the domestic and European race scene with their factory cars. But what we wanted to know was how it raced with a normal driver behind the wheel? Enter our own 1:12-scale Stig who built the X12'16 and put it to the test at club level and BRCA national competitions.



TLR 22 3.0

– the third release in the 22 line-up sees TLR incorporate the greatest number of changes to the championship-winning platform. The 3.0 sports a wider chassis, updated suspension, three-gear transmission and more subtle changes that many feel will be TLR's most competitive 2WD buggy release so far. And if the build and component quality fit anything to go by, then we think those forecasts are going to be very accurate. We handed the car over to our reviewer who built and raced the two previous 22 models and equipped it with the very latest Spektrum and Tekin electrics for when it hit the track.

Also in the March 2016 issue, we bring you the latest RC news from around the world, the most up-to-date kits, hop-ups and spares available, as well as reports from around the country of club and regional action from race series and local competitions.

Although we try hard to ensure that these articles will appear in the next issue, there are instances where this is beyond our control.

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RACE REPORT

WHAT: BRCA NATIONAL WHERE: WEST KENT CLASS: 1:12 ON-ROAD



THE HEAT IS ON

Olly Jefferies may have won 10.5T stock and modified, but it looks like the competition has closed the gap to him whilst Peter Craig and Tim Wood took the wins in 13.5T stock and sports mod respectively

Round one of the 2015 BRCA LMP 12 was one of the rare occasions when racers had to travel south of London to race. The venue for the meeting was the West Kent club based in Tonbridge and this was the third time the club had hosted a national, and the venue is already one of the racers favourites. For 2015 the club had invested in new track markings in white that were so much brighter than the previous black piping they'd used.



Gavin Clinch's distinctive colours on the 13.5T stock A final grid

BIG IS BEST

The track space at the West Kent venue is one of the largest used on

the national calendar and as a result Grant Riddel, the club's ace track designer, had room to lay out one of the most testing tracks of recent years. With a mix of sweeping corners and technical chicane sections a clean run was rare even amongst the top drivers. Grip at this venue is always good and most drivers had to deal with understeer once the additive was laid into the track.

The on-track action looks set to be top class in 2015, with Olly Jefferies back to defend his 10.5T stock and modified titles, and Jim Spencer out again in sports modified. Last year's winner of the 13.5T motor class, Lee Dibble, is off playing with full-size off-road cars this year, so we will have at least one new champion. Over the summer David Spashett has been developing a new car and practicing extensively at West Kent so many were anticipating him running Olly far closer this year. If the top two slip up at all Mark Stiles, Chris Kerswell – who has changed to Roche this year – and Andy Murray should all be



Keith Wale's patriotic dipped body

close enough to take advantage.

13.5T STOCK

Since last year the 13.5T stock class has gained a number of talented drivers, with Peter Craig, David Gale and Elliott Cummings joining the regulars for this year. The opening rounds of qualifying were dominated by the

CRC of Matthew Lax who looked to have a serious pace advantage over the field. Peter Craig moved to the front in round three after a change of pod stopped him stripping spur gears. Peter just managed to fight off a very rapid David Gale who ended up second on the grid with his Team Associated. This was David's first ever



David Spashett's race shell sits on top of the latest Zen-Racing chassis



Peter Craig took the 13.5T stock win from pole with his Xray

meeting with a 13.5T motor so was an even more impressive performance. Third on the grid was Ollie Payne, who looked to have the pace to challenge in the final. The final turned into a real cruise for Peter as he drove a clean and steady opening lap whilst those behind were busy bumping into each other. First David Gale was tapped by Ollie Payne and then Ollie was tapped by Elliott, with the end result being Peter the length of the straight ahead. As the race progressed and the front runners crashed, Gavin Clinch moved his way through to second and even started to close on Peter. At six minutes it looked like Gavin's Zen-Racing chassis might challenge for the win, but a couple of taps allowed Peter to cruise to the win. Gavin took a well-deserved second from seventh on the grid and Neil Diver held off a strong fight back from Ollie to claim third and his first 1:12 national podium.

RESULT - 13.5T STOCK A FINAL			
POS	DRIVER	CHASSIS	MOTOR
1	Peter Craig	Xray	Reedy
2	Gavin Clinch	Zen-Racing	Trinity
3	Neil Diver	Zen-Racing	Trinity
4	Ollie Payne	Zen-Racing	GForce
5	Elliott Cummings	Roche	GForce
6	Mark Barford	Roche	GForce
7	Stephen Rowley	CRC	Trinity
8	Jason Butterfield	Zen-Racing	Trinity
9	David Gale	Team Associated	Reedy
10	Matthew Lax	CRC	Team Powers

10.5T STOCK

This class turned into a battle between Olly Jefferies and his Xray and David Spashett's Zen-Racing. Olly looked to be lacking a little top speed and mid-corner speed compared to David, and as a result had to drive very hard. This meant that Olly was making a few more errors compared to David. In the end it came down to a last round dash, with Olly starting first on the stagger. David spent the first half of the race edging in from

being a second down on the stagger and then sat behind Olly. Olly was well aware that if he let David through TQ was lost and looked to be defending, which in the end led to contact that dropped David back. In the end David was left with too much to do ending up less than a tenth of a second behind Olly for TQ. Third on the grid went to Mark Stiles who was half a lap down on the lead duo, but half a lap up on Andy Murray in fourth.

The A final turned into a great race as Olly made a perfect start and

left a slow starting David Spashett on the line. This slow start meant that David was collected and lost his chance of the victory. This allowed Mark Stiles to step up and take the fight to Olly, who once again seemed to be battling a car that was slow on the straight. These two had a comfortable gap on the rest of the field. Olly backed off and ensured that he hit every apex and this allowed Mark to pile on the pressure. For the full eight minutes the race saw Mark catch up, attempt a pass, drop back, and then re-catch

up Olly. In the end Olly never left a big enough gap and crossed the line a tenth of a second in front of Mark, with David recovering to third by the finish, a lap down on the lead duo.

RESULT - 10.5T A FINAL			
POS	DRIVER	CHASSIS	MOTOR
1	Olly Jefferies	Xray	LRP
2	Mark Stiles	Yokomo	Reedy
3	David Spashett	Zen-Racing	Trinity
4	Chris Kerswell	Roche	Trinity
5	Matt White	Team Associated	Reedy
6	Andy Murray	Xray	Reedy
7	Tim Wood	Serpent	Reedy
8	Mick Farrell	CRC	Trinity
9	Jim Spencer	Red Mosquito	Reedy
10	Marcus Askell	Xray	LRP



Gavin Clinch was second in the 13.5T stock class



Winner of the 13.5T stock class was Peter Craig



Jim Spencer took second place in sports modified



TQ and the win in sports modified went to Tim Wood



David Spashett battled back to take third in 10.5T stock



Two poles and two wins for defending champion Olly Jefferies

NEW CARS



The new Xray X12'16 was a popular choice

The 2016 season seems to have kicked off with a large number of new cars, many of which saw a great deal of success at the first meeting. First up is the new Xray that is based on the car that won the European Championships in March. The car features a new low-line pod, a floating servo and a slightly wider chassis and pod compared to the old car. Ollie obviously won both days with the car, but Peter Craig also won 13.5T stock and Markus Askeff, Luke Burley and Scott



The updated Zen-Racing car was being raced by the team

Booth all featured well with the new chassis. Next up is the new Zen-Racing chassis that has a much shorter pivot compared to the 2014 car. This combined with a new longer top pod plate and forward shock position has increased corner speed compared to the older car. Zen-Racing also have a new pod, which is low-line and slides up and down to

adjust ride height, and a new design of pivot. If anyone is pushing the limits of 1:12 design at the moment it's Zen-Racing. David Spashett to many looked the quickest driver over the weekend with this car and Ollie Payne, Gavin Clinch and Adam Walker-Catchpole also had great pace as well. A completely new manufacturer to the series is Roche. This car is a conventional design with a low line pod. It is very well made with a huge range of adjustment built into the kit. The car has immediately proved a success in the UK with Elliott Cummings having a great weekend at West Kent, Chris Kerswell making the top three in modified and Mark Barford making the A final in the 13.5T stock class.



The Serpent S120LTR of Tim Wood

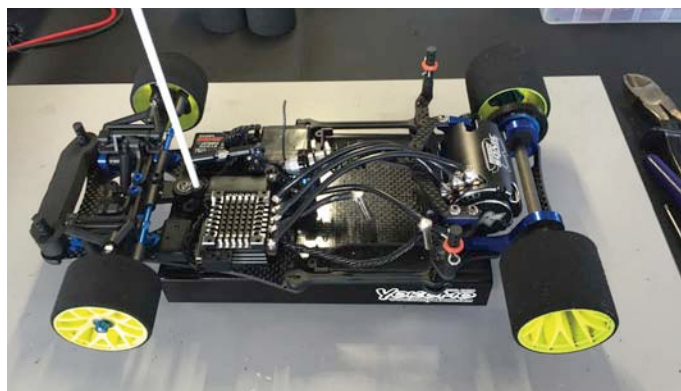
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Chris Kerswell is now running the Roche chassis

The last of the new cars is the Serpent S120 LTR, which is an evolution of the older platform that features a novel pod pivot that avoids any tight spots in the movement. Serpent only had a small team at the event, but Tim Wood showed the cars ability by dominating sports modified on Sunday.



Mark Stiles's efforts with his Yokomo were rewarded with two podiums



The latest Team Associated chassis belonging to Nigel Hale

SUNDAY

Sports modified saw the largest entry of the weekend with 49 drivers competing for the win. From the start it was Tim Wood and his Serpent that set the pace with the rest of the field struggling to keep up. As the day progressed Tim was a constant at the front, being closely followed by Jim Spencer (Red Mosquito), Luke Burley (Xray) and Ollie Payne (Zen-Racing). These four seemed slightly quicker than the rest of the field. In the end Tim and Jim sneaked over for the 38th lap, with Ollie and Luke third and fourth separated by a second.

The final was a great race between the top three with Tim leading a freight train around for the eight minutes. Try as they might both Jim and Ollie just couldn't find a way past Tim and ended a second apart as the race finished. Tim took his first win of the season with the new Serpent S120 LTR, and looked at this meeting to be the man to beat for the championship. Jim as always drove a faultless race, but this time he was pushed hard by young star Ollie Payne who achieved his first podium in the sports modified class.

RESULT - SPORTS MODIFIED A FINAL

POS	DRIVER	CHASSIS	MOTOR
1	Tim Wood	Serpent	Reedy
2	Jim Spencer	Red Mosquito	Reedy
3	Ollie Payne	Zen-Racing	G-Force
4	Peter Craig	Xray	Reedy
5	Elliott Cummings	Roche	G-Force
6	Ashley Wiffen	Xray	Reedy
7	Luke Burley	Xray	Trinity
8	Eugene Galley	CRC	Reedy
9	James Stewart	Zen-Racing	HPI
10	Matthew Lax	CRC	Team Powers

MODIFIED

This class was all about Ollie Jefferies last year, as he cruised to the win by at least a lap at every meeting. The first national of the year certainly didn't work that way for Ollie as he was running at very much the same speed as David Spashett and Mark Stiles. In the end it took all day for Ollie to find a set-up that would allow him to pull his normal gap to the competition. In the end a perfect last round and small mistakes from the competition allowed Ollie to claim the only 42 lap run of qualifying and with it a comfortable TQ. David Spashett and Mark Stiles were the only drivers to make 41 laps in second and third, with Andy Murray, Adam Walker-Catchpole, Chris Kerswell and Scott Booth all being on 40 laps.

The final was a much closer race with Ollie's Xray looking very



Steve 'Wookiee' Payne is ace mechanic to son Ollie



Tim Wood is a championship favourite in the sports modified class



Matt Rice and Mark Stiles both looking happy in the pits



Neil Diver took third place in 13.5T stock with his Zen-Racing chassis



Marcus Askell will be racing alongside team mate Olly Jefferies at Xray



HPI Europe employee James Stewart made the A final in sports modified

tricky to drive in the early stages, lifting wheels and hooking into corners. This gave David Spashett and Mark Stiles the opportunity to look for a way into the lead. Eventually the pressure told and Olly ran wide on the hairpin before the straight and this allowed David to nip down the inside of Olly. Olly closed the door hard and David was forced into clipping a corner, which unfortunately broke David's car. This allowed Mark Stiles and Olly to fight for the win. As the race progressed Olly's car looked to be getting easier to drive, and as a result from the mid-point of the race Olly pulled away to take the

win from Mark Stiles. Chris Kerswell came through to take third and with it the first national podium for Roche in the UK.

RESULT - MODIFIED A FINAL			
POS	DRIVER	CHASSIS	MOTOR
1	Olly Jefferies	Xray	LRP
2	Mark Stiles	Yokomo	Reedy
3	Chris Kerswell	Roche	Dynamite
4	Andy Murray	Xray	Reedy
5	Adam Walker-Catchpole	Zen-Racing	Reedy
6	Mick Farrell	CHC	Trinity
7	Scott Booth	Xray	Reedy
8	Matt White	Team Associated	Reedy
9	Marcus Askell	Xray	LRP
10	David Spashett	Zen-Racing	LRP

Although the results were the same with Olly winning both days, it looks like the competition is going to be much closer this

year. In addition to the normal UK drivers we will also be joined by Alexander Hagberg for selected rounds, so spectators will be in for a treat!

The next round of the series is at Crewe in mid-November and they have a lot to live up to if they want to better the meeting the West Kent team laid on. ■



Olly Jefferies, Mark Stiles and David Spashett were your top three in 10.5T stock held on Saturday



The 13.5T stock A final podium and a win for Peter Craig ahead of Gavin Clinch and Neil Diver

ONES TO WATCH

Across all the classes Racer has some picks for drivers to watch and first on the list is Ollie Payne. Ollie is now in his third year of national competition and has spent the summer building on his success at last year's European Championship where he won the junior stock title. Ollie and his every affable father Steve have spared no effort to come out and fight at the front this year. Aidan Ripley is another fresh talent who could be right at the front. Aidan had some great performances in 2014, but lacked consistency. If he can build on last season and stop crashing he could be a podium contender in the main classes this year.





Axial Yeti SCORE Trophy Truck RTR

The Yeti SCORE Trophy Truck is one that Axial has been working towards for a long time/ Axial always wanted to build a Trophy Truck, but they first had to build a successful platform. For authenticity, they wanted it to have a solid rear axle versus the commonly accepted independent suspension all the way around. For true scale looks with the functionality to match. The Yeti Rock Racer with its IFS front-end and solid rear axle, provided the key ingredients to deliver the vehicle of their dreams and their very own solid rear axle trophy truck. To top it off, Axial went straight to Roger Norman, CEO/President of SCORE International for his blessing and official licensing. They also partnered with the top companies actively developing

their products through desert racing to take authenticity to the next level. The Axial SCORE Trophy Truck is suspended on a set of aluminium King Shocks with iconic blue shock caps, rod ends, ride height adjusters and springs. BFGoodrich bring you accurate replicas of the latest spec desert racing tyre, the Baja T/A KR2. A set of five functional BFGoodrich tyres are mounted to extremely strong I05 Method Race wheels with a fifth wheel and tyre being a functional spare accessed quickly from the rear of the Trophy Truck cage.

Other partners on this vehicle include Rigid Industries, Lowrance, Fuel Safe, Pro Am Racing Products, Magnaflow, PCI Race Radios, Rancho Drivetrain Engineering and Sparco. There is a rear anti-roll bar for added stability at high speeds, whilst there are moulded plastic light buckets on all four

corners so you can simply add Axial's LED lights and a controller for some added coolness.

A 3150Kv brushless motor with a Vanguard speed control that is both 3S LiPo capable and waterproof powers the Trophy Truck. The transmitter is a three channel Tactic TTX300 matched to a 2.4GHz receiver, whilst a Tactic TSX45 metal gear servo handles the steering duties.

AX90050 Axial Yeti SCORE Trophy Truck 1:10 Scale Electric 4WD - RTR

Available from: Hobbico in the UK
Website: www.axialracing.com
Contact: 0845 459 1966

Protoform F1-Fifteen



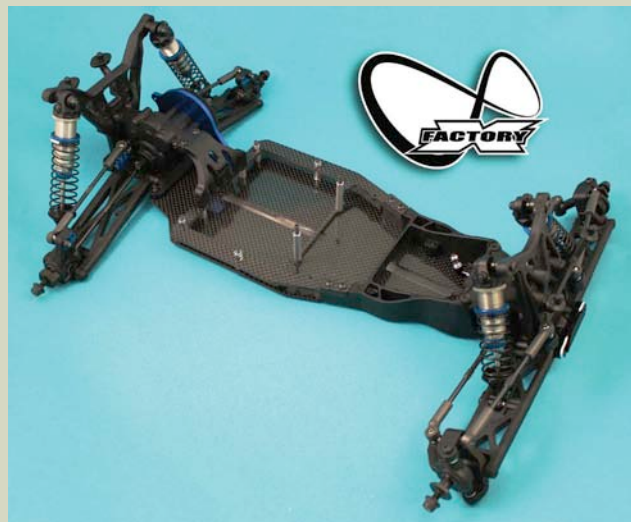
Protoform offers some beauty and elegance to the Formula 1 grid with their new F1-Fifteen race body. A sleek, low nose, side-pod undercuts, and injection moulded black nylon driver's helmet give it an ultra-realistic look. A new add-on airbox scoop and decal sheet, featuring seatbelts, steering wheel detail, car numbers and a variety of helmet visor colours, complete the scale details. The F1-Fifteen fits most modern F1 chassis's with trimming for front and rear suspension. This body is produced in the USA from genuine .030" (0.7mm) Lexan, and includes decal sheet, driver helmet, hardware and paint-then-peel overspray film. Please note that the front and rear wings not included with body.

I545-30 Protoform F1-Fifteen

Available from: CML Distribution
Website: www.cmldistribution.co.uk
Contact: 01527 575349

Infinity T5M Chassis Kit from X Factory

Following on from the successful carbon fibre chassis kit for the Team Associated B5M buggy, X Factory has announced their Infinity carbon fibre chassis kit for the T5M. The CF chassis is a direct-fit replacement for the heavy aluminium standard AE chassis that saves about 75g whilst adding much-needed flex for improved cornering, jumping, and performance in bumpy sections. The new Infinity By X Factory CF chassis kit will be available with the chassis and other CF parts, aluminium stand-offs, hardware and instructions.



XFI07	Infinity Carbon Fibre Main Chassis (T5M)	£58.49
XFI08	Infinity Carbon Fibre Chassis Side Rails - pr (T5M)	£11.99
XFI09	Infinity Carbon Fibre Chassis Conversion Set (T5M)	£69.99
XFI10	Infinity Plastic Chassis Side Stiffeners - pr (T5M)	£14.99

Available from: X-Factory UK
Website: www.xfactoryrc.co.uk
Contact: 01923 816636

Tekno NB48.3 1:8 Competition Nitro Buggy

Since Tekno released their first nitro buggy in November of 2013, the company has improved their knowledge of the racing class and the result is a new buggy for 2015 in the form of the NB48.3, which is faster, nimbler, easier to drive. Longer shocks have been fitted to increase suspension travel, with revised upper camber link positions on both the front and rear shock tower provide setup options that improve driveability and traction in all conditions. A new piston was designed specifically for the longer shocks to adjust the compression/rebound characteristics. There are also new lower wishbones with revised shock mounting locations. The chassis has evolved as well with lessons learnt on the EB48 and NB48 that saw moving weight forward results in better cornering so Tekno eliminated the rear engine configuration from the NB48.3 and concentrated on optimizing the handling and flex characteristics of the front engine layout. Another



area that received an update was the braking and so now larger, fully CNC machined, hardened, and ground discs replace the old parts, whilst semi-metallic brake pads are now separated by springs (to ensure the brakes are only engaged when you

want them to be. Completing the overhaul of the braking set-up is the linkage that offers better consistency and easier brake bias adjustments.

New rear hubs allow the option of using the stock CV axles or the upcoming universal driveshafts, and aluminium hubs will be an option. At the front of the vehicle are new trailing steering spindles and matching carriers that vastly improve high speed bump handling in addition to smoothing out the steering response. The vehicle initiates turns more predictably and finishes corners better than ever before. Finally there are the V2 hinge pin braces that provide more adjustability than ever before. For example, changing the roll centres at the hinge pin is now an easy task and allows you to set up the vehicle for any conditions.

Available from: X-Factory UK
Website: www.xfactoryrc.co.uk
Contact: 01923 816636

RC4WD M4 High Precision Billet Tie Rod Ends

RC4WD can now offer their aluminium tie rod ends in a range of colours. Machined from billet aluminium they feature a 4mm threaded shaft with a pre-installed stainless steel ball. Sold in a pack of ten, they come in black, blue red and silver options.

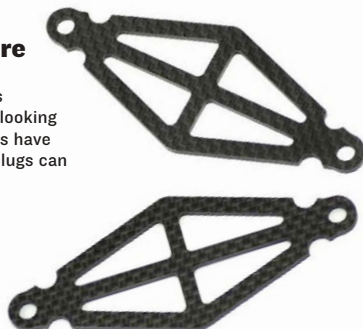


Z-SI372 RC4WD M4 High Precision Billet Tie Rod Ends - black (10)
Z-SI356 RC4WD M4 High Precision Billet Tie Rod End - blue (10)
Z-SI364 RC4WD M4 High Precision Billet Tie Rod End - red (10)
Z-SI348 RC4WD M4 High Precision Billet Tie Rod End - silver (10)

Available from: RC4WD
Website: www.rc4wd.com
Contact: rcrock@rc4wd.com

Serpent SRX-4 Carbon Fibre Battery Straps

For the Spyder SRX-4 buggy, Serpent has introduced these lightweight and superb looking battery braces in carbon fibre. The braces have small cut outs to make sure the battery plugs can be reached with most popular brands.



500463 Serpent Battery Plate Carbon Fibre (2) SRX4

Available from: Serpent UK
Website: www.serpent-uk.com
Contact: serpent-uk@hotmail.co.uk

JANUARY 2016

DATE	CLASS	LOCATION
3	1:10 Off-Road Winter Series	Eden Park Raceway
3	Rug Racers	Ware
3	BRCA Micro National	Torbay
10	1:10 Off-Road Winter Series	Faversham
10	Schumacher Indoor Off-Road Masters	Workshop
16-17	Reedy 1:12 Race of Champions	Milton Keynes
24	1:10 Off-Road Winter Series	TORCH
31	Off-Road Wars	Maritime Raceway
31	Schumacher Indoor Off-Road Masters	Workshop
31	BRCA Micro National	Hinckley

FEBRUARY 2016

DATE	CLASS	LOCATION
6-7	British Winter Open Championships	Silverstone
7	1:10 Off-Road Winter Series	Eden Park Raceway
7	Rug Racers	Ware
20-21	BRCA 1:12 National Championship	Newbury
21	1:10 Off-Road Winter Series	Faversham
21	Schumacher Indoor Off-Road Masters	Workshop
21	1:10 Off-Road Winter Series	TORCH
28	Off-Road Wars	Maritime Raceway
28	BRCA Micro National	Caldicot

MARCH 2016

DATE	CLASS	LOCATION
6	1:10 Off-Road Winter Series	Eden Park Raceway
6	Rug Racers	Ware
13	1:10 Off-Road Winter Series	Faversham
13	Schumacher Indoor Off-Road Masters	Workshop
19-20	BRCA 1:12 National Championship	Leeds
25-28	NeolG	Telford
27	1:10 Off-Road Winter Series	TORCH

APRIL 2016

DATE	CLASS	LOCATION
9-10	BRCA 1:8 Off-Road National	Deerdale
16-17	BRCA 1:10 Off-Road National	Kidderminster
16-17	EFRA European B Championship warm-up	Portugal

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THRASH TEST

LRP S10 BLAST TC 2 BL RTR

SPEC: 4WD MOULDED CHASSIS CLASS: 1:10 ON-ROAD COST: £TBC



HAVING A BLAST AT THE TRACK



Can you take a Ready-To-Run car to a race meeting and be taken seriously? Well LRP think so with their new Blast TC 2 BL so Racer did the honourable thing and hit the track with one straight out of the box!

SPEC: 4WD MOULDED CHASSIS **CLASS:** 1:10 ON-ROAD **COST:** £TBC



The S10 Blast TC 2 comes ready to race straight out of this box!

“The Blast TC 2 does make a very good car for those who wish to start racing touring cars at club level.”



Bullet connectors are used between the speed control and motor



LRP's K7 Vector brushless sensed motor is rated at 4300Kv, which is around 8.7T



The Spin Pro Brushless speed control is used in other Blast models





LRP supplied one of their own 4800mAh capacity LiPo battery packs to use in the car



The 4WD transmission uses a blue alloy propshaft to connect drive to the front wheels



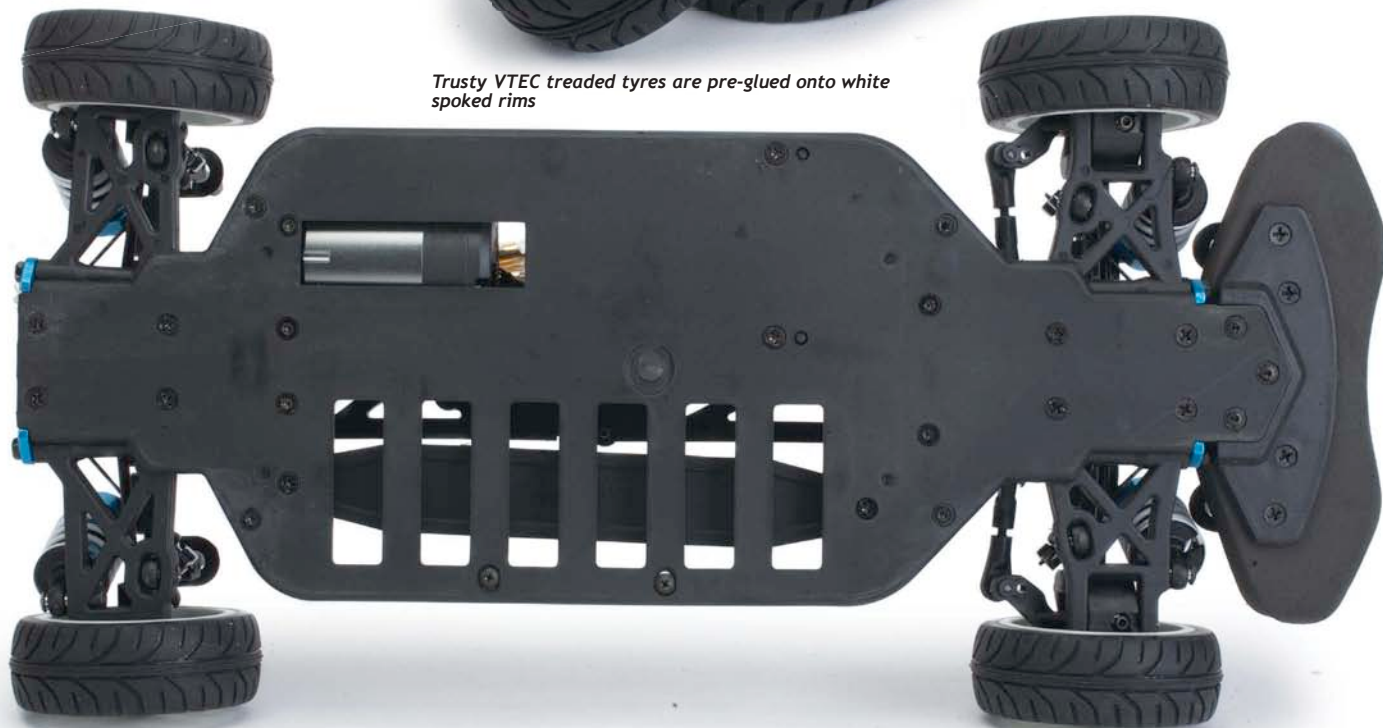
The white springs are towards the soft end of the spectrum



big bore oil-filled shock incorporate threaded bodies for easy ride height adjustment



Trusty VTEC treaded tyres are pre-glued onto white spoked rims



The Ready-To-Run (RTR) format has an abundance of off-road vehicles to choose from in many different shapes and sizes, all primarily aimed at the entry-level and recreational user end of the market. For on-road RC enthusiasts, there are options for scale looking models, but not many that are designed and promoted race machines that can be taken to the track. This is where the LRP Blast TC 2 steps in with a touring car inspired body, high grip

rubber tyres and brushless electronics it is instantly crying out, 'Race me!'

ARTR – ALMOST READY TO RACE

We have seen the S10 Blast TC chassis previously in *Racer* magazine with the Porsche GT3 body adorned to it. This was offered in brushed format whereas the Blast TC 2 is supplied with brushless electrics

installed. Inside the highly informative box that features loads of info is the factory built, 4WD moulded chassis with all electrics neatly installed. The LRP A2 STX Pro 2.4GHz steering wheel transmitter is widely used across the majority of LRP's RTR series so it is no surprise to see it supplied in this package as well.

To get up and running, you are required to purchase a LiPo battery and charger, which may seem strange in an RTR package but when these are supplied they are usually the very basic

ON TEST



We headed to the brilliant Adur circuit for a midweek first test (and photo shoot) prior to running the car at their club meeting. This gave us time to check how the Blast TC 2 performed out of the box and get us race ready. After the stationary photos were taken we did a few laps gradually building up speed. Grip levels were low to begin with and the car was easy to slide about especially under hard acceleration, no doubt aided by the powerful motor. With more laps under our belt we started to get used to the handling and speed, which was very impressive. The tyres were providing better grip thanks to getting warmer with the constant lapping. The car was also very responsive on the front-end which we dialled out slightly using the steering dual rate on the transmitter. We were aware that the transmission is rather noisy especially when under stress/load.

We did a full five-minute run as fast as we could which came to an abrupt halt at the end of the straight after hitting the inside kerb. Unfortunately the landing split the front of the body quite badly so some Shoe Goo and tape were used for a quick trackside repair. Overall we were very impressed with the cars performance straight out of the box. With a bit more time we would have liked to play with the chassis settings to help fine-tune it to the conditions. With a wet weekend forecast we decided to head indoors at the newly formed Chichester RC Circuit Racers just along the coast from Adur. Although the car would have survived the wet weather, our test pilot for the day was not so keen.

The Chichester club runs on a carpeted 30x12m track and is aimed at new comers and experienced racers as well.

We didn't change any settings from the Adur test and was pleased to see the rubber tyres provided plenty of grip straight away. Practice was completed without any trouble and we were able to push the car hard in the heats. We were up against high-end TCs also running on foam tyres so we were never going to challenge the front-runners, but managed to hold our own in the mid-pack. The TC was really fun to drive and had plenty of power and top speed. So much so that we had to apply the brakes at the end of the straight and into a fast right-hander in front of the rostrum. The factory settings on the speed control were spot on with regards to power delivery and brakes although the second heat was cut short due to the heat protection cutting in. Running indoors obviously raises all the temperatures so we chose to adjust the speed control and turn off the temperature safety setting for the remaining runs.

Apart from this minor speed control issue the car performed well and did everything that was expected. We did split the body shell further after clipping the track markings on the odd occasion. The body does seem be less flexible than aftermarket versions as we don't see damage occurring this easily with our normal race bodies. Overall we were really impressed the Blast TC 2. Speed is very good and the car handled well on the carpet. The car did get some attention partially from the new members of the club. They were impressed that it was all RTR and basically taken out of a box and raced. No, it won't win the next BRCA national, but it does make a very good car for those who wish to start racing touring cars at club level.

Racer Tips

The Blast TC 2 BL will only operate at its best if run on an ultra-flat surface. Any stones or debris in the area you are running in could affect its handling. Even at the track during our thrash test we hit a few small stones that put the car off course a little and the body rubbed along the floor to start off with particularly through the corners. We trimmed roughly 2mm off the front and sides of the body and raised the chassis slightly via the threaded shock bodies to help with this. Also, trim the body posts as they look silly left extended out of the body, making sure you leave enough holes if you wish to run an aftermarket version.

The LRP A2 STX Pro 2.4GHz transmitter is used in the majority of LRP's RTR series



The LiPo battery comes with 4mm tubes and an adapter to connect it to the LRP speed control

entry level units that require upgrading anyway, particularly if intend to take your car racing.

A REOCCURRING BLAST

The Sio Blast TC platform is a clever design by the guys at LRP as with only a few changes, mainly wishbones and shock towers it doubles up as the basis for the off-road trucks and buggies as well. This includes the MT monster truck, TX stadium truck, SC short course truck and BX buggy. This sharing of components provides unity between the Blast series

and also helps keep production costs down.

The 4WD shaft-driven chassis follows the conventional layout with the blue alloy propshaft running down the centre. This is connected to the front and rear geared differentials that are sealed to keep out and dust and debris. The whole transmission is fully ball raced to aid efficiency and performance and this is delivered to the wheels by CVD front driveshafts and dogbones at the rear, although CVDs are an option.

The bathtub-style chassis design and the

fact that it is shaft-driven may be a little dated compared to the modern belt driven carbon fibre equivalents, but it provides ample strength for all the internals and is a great way to start racing thanks to the many set up options it provides.

TC – TOTAL CONTROL

The Blast TC 2 features big bore oil-filled shock absorbers that incorporate threaded bodies for easy adjustment opportunities. The shock bodies are plastic, but have blue alloy caps top and bottom and adjustment collars to add to the bling factor. The soft option white springs fitted to the shocks

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◀ will help with overall grip levels of the whole chassis making this a great entry level, driver friendly racer.

As mentioned, the chassis and suspension have an abundance of set-up opportunities. Multiple shock mounting positions front and rear allow you to tweak the car to your surroundings. The chassis is fully tuneable thanks to turnbuckles used on the steering and upper links both front and rear for toe in/out and camber settings. If you really want to get involved in learning about car set-up then the lower wishbones include a grub screw for droop settings both front and rear.

To complete the race tune set-up front and rear anti-roll bars are also included that limit the car's roll in the corner without detracting from the excellent bump handling qualities of the relatively soft suspension. If all this sounds confusing, then don't worry as the comprehensive LRP manual has lots of information and guides to help you out. Every aspect of the cars operation and tuning is covered as well as full list of parts and exploded diagrams.

POWERED BY LRP, OBVIOUSLY

LRP started their RC journey with electric motors back in the late 80s and now produce world championship-winning electronics across the whole hobby. It comes as no surprise to see the 'Blue is better' brushless units installed in this TC model.

The popular LRP Spin Brushless speed control is again used across the Blast range and features a built-in switch and cooling fan. This sensored unit is also splash proof meaning you are able to run in all weather conditions. This is helped by the 3Kg steering servo also featuring a splash proofing design along with the 2.4GHz receiver which is housed in a rubber sealed, water proof case situated on top deck of the chassis.

The speed control is connected to the powerful K7 Vector brushless motor that is rated at 4300Kv, something that LRP rates at 8.7-turns so suitably fast enough to attend any club meeting. The motor operates through a steel pinion via 48dp gearing

and is kept cool thanks to a blue anodised alloy motor mount.

THE TC BITS

To separate this Blast from the RTR basher tag of its cousins, it is supplied with a proper touring car inspired body shell. Although of a slightly older design compared to the current crop of aerodynamically styled TC bodies, this digitally screen printed version is defiantly ready to hit the track, helped by the standard-sized TC rear wing. The body is offered in a catchy flame inspired design made famous by LRP's own Ronald Völker, which will look cool out on the track. Only one body colour scheme is available so you may well come across another at the track.

LRP's own branded VTEC high-grip tyres are used on the Blast TC 2 and come pre-glued with soft inserts on to white wheels. These are attached to the hubs via the widely used 12mm hex so fitting other race ready wheels and tyres is an option. ■



A Deans-type connector on the speed control can handle a high performance battery



The receiver sits in its own moulded box located on the moulded top deck



Front and rear anti-roll bars are a nice feature, hinting at the S10 Blast TC 2's race potential



Dogbone rear driveshafts extend from the geared rear differential



SPECIFICATION

Model:	LRP S10 Blast TC 2 BL RTR
Scale:	1:10
Class:	On-Road
Application:	Entry-level/competition
Format:	RTR
Power:	Electric
Chassis:	Moulded
Drivetrain:	4WD
Transmission:	Shaft
Differentials:	Gear
Shocks:	Oil-filled/Threaded bodies
Bearings/Bushes:	Bearings

TECHNICAL DATA

Length:	414mm
Width:	190mm
Height:	120mm
Wheelbase:	262mm
Weight:	1373g

WHAT WE USED - Electric Kit

TRANSMITTER:	LRP A2 STX PRO 2.4GHZ FHSS STEERWHEEL (KIT)
RECEIVER:	LRP A3-RX DELUXE 2.4GHZ FHSS (KIT)
SERVO:	LRP-7103WP (KIT)
SPEED CONTROL:	LRP SPIN PRO BRUSHLESS (KIT)
MOTOR:	LRP VECTOR K7 4300KV BRUSHLESS (KIT)
BATTERY:	LRP 3500MAH 7.4V 25C LIPO

OPTIONAL PARTS

- 122503 ALUMINIUM WHEEL ADAPTER BLUE (4)
- 122506 REAR CVD DRIVESHAFT (2)
- 122524 ALUMINIUM FRONT C-HUB
- 122525 ALUMINIUM STEERING KNUCKLE (2)
- 122527 ALUMINIUM STEERING SLIDER
- 124616 CARBON BATTERY TRAY 3MM
- 124617 ONE PIECE UPPER CARBON CHASSIS PLATE 2.5MM
- 122511 CARBON FRONT SHOCK TOWER
- 122512 CARBON REAR SHOCK TOWER

VERDICT

- ➕ Fantastic build quality and spec Brushless performance
- ➖ Brittle body

RACER RATING

★★★★★

CONTACT

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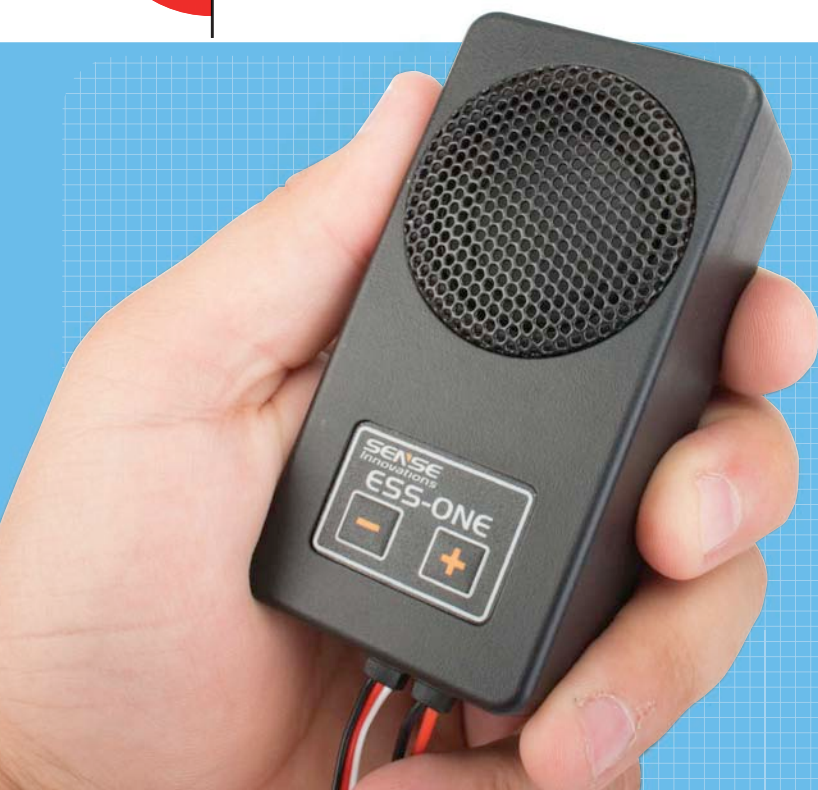
SUMMARY

The LRP S10 Blast TC 2 BL is a fantastic package that will give you a very fast RC car from a top-flight manufacturer. OK, it will never make a touring car national A final, but it will provide you with a very good club car and a great way to start racing and move on from running round a car park. As the sub-heading mentions, we took this car to our local club and raced. Raced well too. Racer recommended!



TEST SESSION

WHAT: TEAM ASSOCIATED ESS-ONE



SOUNDS LIKE

In the almost silent world of electric RC, one company has decided to make some noise! Joe Brown takes a look at the latest box of tricks distributed by Team Associated produced by Sense Innovations

Before I wrote for Racer Magazine, I had worked for a couple of model shops and not being a fan of nitro vehicles, I was always firmly in the corner of electric RC. I was always met with the same argument – the noise. Yes nitro vehicles are quick, but electric power has quickly caught up with the speed yet the sound for many is still lacking and this is what puts them off.

There have been many sound systems throughout the years to recreate the sounds of an engine, but the limits of amplification and power have meant the sounds are almost inaudible when your model is at high speed. Yes, I did say electric cars are almost silent, but they do still make some noise.

BRING THE NOISE

The Sense Innovations ESS-One system is going to change the thinking of those that want to bring the noise. The all-in-one unit is fairly large, slipped easily into the Vatera Ascender test model and benefits from being fairly light. The reason for this is the electronics are not very large, but the box actually works as a ported speaker enclosure much like you would find in your road car or high-end home cinema. The

driver inside measures only 35mm across, but I can tell you it packs a mighty punch. Power for the system is provided directly from the battery. Amazingly the ESS-One can take an input from 2S (7.4V) up to 6S (22.2V) LiPo. But it is advised that on a power setting higher than 3S (11.1V) cell you limit the volume to level four to reduce distortion in the sounds. Inside the box you will find a Deans-style splitter so you can easily power the system.

Y NOT

Connecting the ESS-One is simple, also included in the box is a Y lead, this splits the throttle lead with the receiver. Calibration is very simple and only needs to be done the once for your model, unless you change any settings on your transmitter. With everything connected and calibrated you switch your model on and hear a beep, which means the system is ready. With a tiny bit of throttle input you hear a starter motor spin up and then the engine sound roars into life, it will then sit at idle. However, if you do nothing the engine will shutdown until you touch the throttle again which restarts the engine sounds.

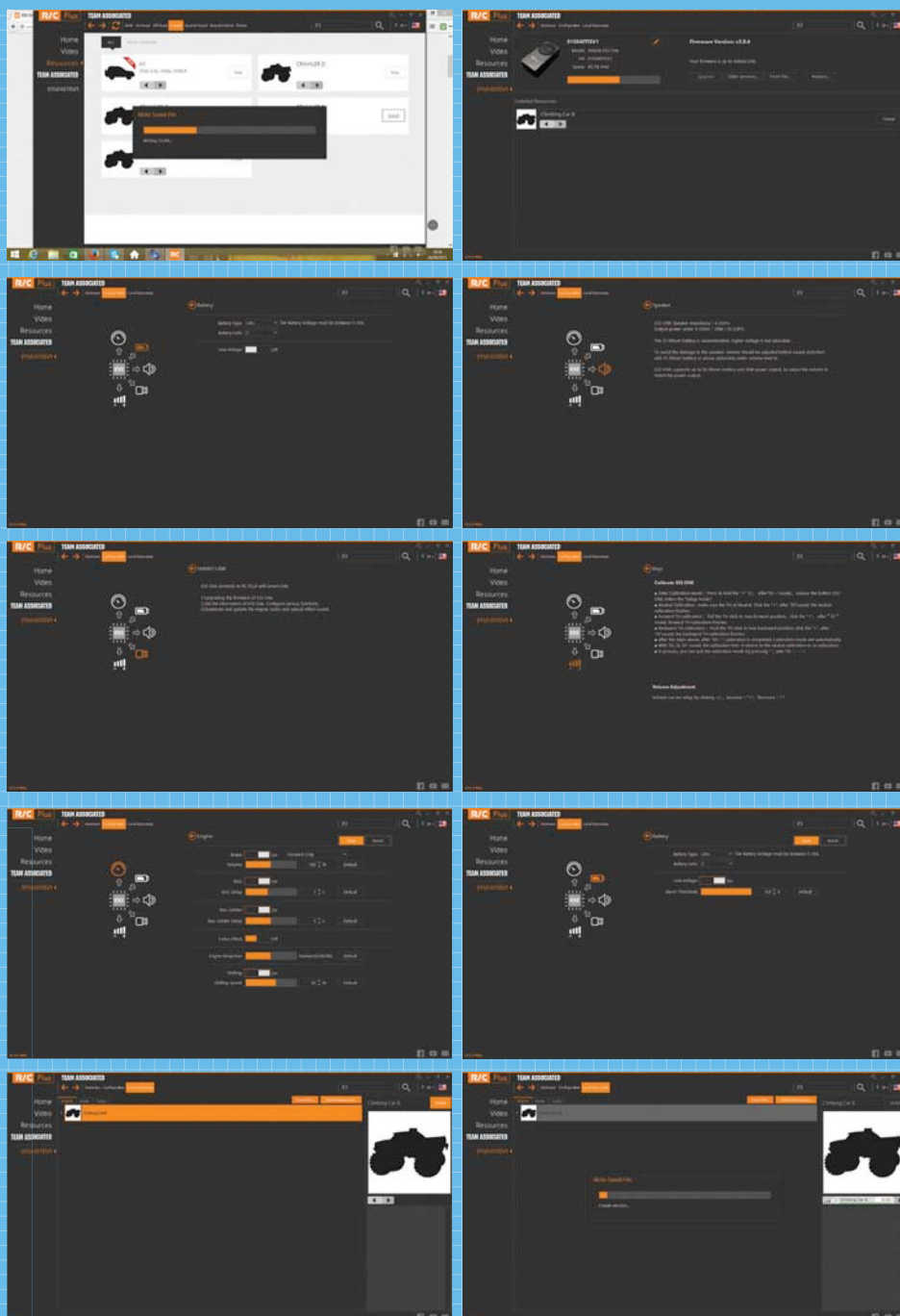
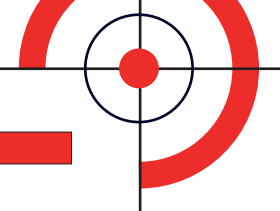


The ESS-One was installed into our test chassis in minutes

When you accelerate the engine sounds increases with speed up till you hit your throttle limit. It then reduces the noise as you slow down. On top of the sound module are the plus and minus buttons these are used for setting up, but in running mode they are the volume control buttons.

SOUNDS LIKE

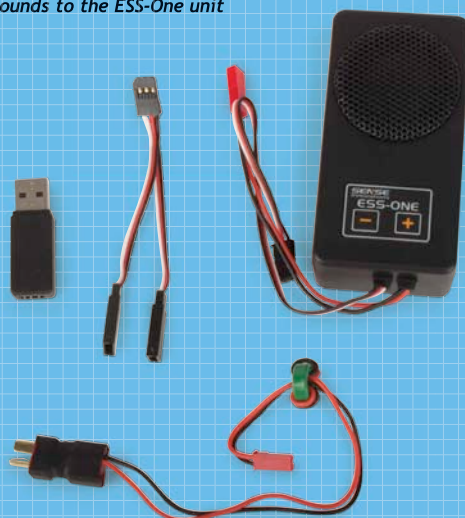
Do not be thinking the unit is a one trick pony with one generic engine sound. The trick up the ESS-One's sleeve is the addition of the S Link USB adapter. By downloading some software called RC Plus, you can download a vast array of different engine sounds recorded from real engines. Some additional purchases may be required for some



Screen shots of using the RC Plus software to add sounds to the ESS-One unit

effects. Not only can you change the sounds, but you can also add rev limiters, turbo effects, dump valve sounds, horns or even sirens. Sadly the program is only available on PC, but after having a chat with the guys from Sense Innovations they have let slip that they hope to have a smartphone app available soon so you can update the sounds from your mobile or tablet.

The range of engine sounds is huge so no matter what sort of RC vehicle you drive whether it's a full on scale pick-up truck or a short course monster there is an engine sound that is right for you... ■



ON TEST

This is one of the simplest sound units I have ever used. The easy plug and play system meant it was installed in minutes. At just under £100, it maybe a little steep to justify the cost, but the pure volume that comes from the box and the flexibility of being able to download new engine sounds to the system makes this unit a joy to use. With more sounds being added all the time to the RC Plus software, you will surely find the right engine note for your model. Even with the standard engine sounds that are programmed out of the box in the Varrera Ascender it added amazing realism to the model. Out testing with the system on a local beauty spot it even had the ramblers looking around wondering where the noise was coming from. The RC Plus system program may not look the easiest to use at first, but as soon as you plug the USB into your pc its very easy to work out how the system works. Uploading different engine sounds only take a couple of minutes and you do not need the sound unit plugged on to a battery as the unit powers up through the USB. This unit will certainly make your previously quiet electric model into a real head turner!

SPECIFICATION

Manufacturer:	Team Associated
Model:	ESS-One
Speaker Size:	3.9x1.88x1.35"
Speaker Weight:	90.2g
RRP:	£99.99

VERDICT

➕ Simple plug and play system
All wiring included

➖ RC Plus not Apple compatible

CONTACT

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To the left is the contents of the box whilst the RC Plus software allows the potential of the system to constantly increase

Off to a Flyer

◆ ADDITIONAL PHOTOGRAPHY COURTESY OF MOODYFOOLS



Whilst the winter series has started well for Ollie Jefferies, he knows he cannot become complacent. And he won't be short of racing as he participates in the domestic 1:12 nationals and EWS as well as the international ETS

Outdoor race action from the final national held at West London

The end of the 2015 BRCA 1:10 TC National Championship ended in disappointment for me as I only placed third in the series and losing the title that I won just 12 months earlier. It had been a difficult year and after winning round one I was confident I could retain my title, but after a few ups and downs it wasn't to be. Elliott Harper took his first national championship and it was well deserved. He showed great pace all year and took a convincing win at the final round to take the overall series. I learnt a lot over the course

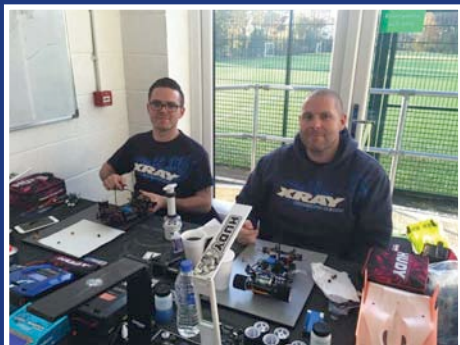
of the season and feel this will put me in a good position heading into 2016. After losing a title you were defending it almost feels like something has been stolen that belongs to you. Of course it doesn't belong to anyone, but this makes me even more determined to get it back in 2016. I really enjoy spending the winter months trying to improve and work on areas I felt that were not as good as they could be. I hope to start 2016 as I did 2015, but keep up that momentum for the whole season.

ENJOYING MY RACING

The winter season is here and that means I will be racing on carpet with the touring car and 1:12-scale. One-twelfth has been good to me over the years and it's now a class I really enjoy. In the past it was something I did over the winter as we didn't have any really popular TC series to compete at, but now I do it because it's fun – the cars are great to drive and extremely fast.

Round one took place at the West Kent club and this is proving to be a popular venue for drivers in the south east to practice at.

After a very good 2014-15 season, I was sure the others would be much closer and this proved to be. David Spashett was competitive all weekend along with Mark Stiles. David and I had a small advantage over Mark, but he was close enough to pick up any scraps if anything 'kicked off' in the finals. And this proved to be the case as he finished second on both days after he drove clean and consistent finals. I took TQ and the win in both 105T stock and open modified which gave me the perfect start to my 2015-16 campaign. My team mate Markus



Olly and Xray team mate Marcus 'Q Ball' Askell at West Kent



This has been the car to beat at the first rounds of the 1:12 nationals



West Kent hosted the first round of the 1:12 nationals



Chasing former TC champion Chris Grainger



Getting off to the best start of the 2015-16 BRCA 1:12 National Championship!



LRP will continue to power the Xray driver through 2016



Olly wants to have the #1 back on his TC car in 2016

Askell had a great weekend also for Xray, making the A finals in both classes he contested.

KEEP YOUR TEAM MATE CLOSE

I worked hard over the weekend to try improve my car in the small details/ Last year at the 1:12 nationals I had a pace advantage so it was easy to become complacent with how your car is working. After finishing third at the European Championships I feel I need to work much harder over the course of a national weekend, and never accept that your car or pace is good enough. I have always tried to improve things over the two days, but plan to try work even harder this year. One thing that will be a big help is the fact my team mate from Sweden Alexander Hagberg who won that European Championship-title is moving to England to live with his girlfriend in Luton. He will attend most UK races now so I have a great benchmark every weekend to judge where I am!

INDOOR TC

Along with 1:12 nationals I will be competing at the EWS (Essex Winter Series) touring car series in Essex. This has quickly become the most popular TC series over the winter and attracts the top drivers who we see attend the nationals in the summer. Round one went great as I took TQ and the win ahead of Chris Grainger and Kyle Branson. My car worked great and this allowed me to be consistent over the day. The second race weekend for the EWS proved to be much tougher as I wasn't able to find the same balance from previously so never felt 100 per cent. Elliott bounced back from a poor round one to take the win with myself coming home in second. Although not a win, it was still a good result towards my championship. The whole EWS team do a great job of organising these races that creates a great atmosphere and enjoyment for everyone at the event.

ERROR-FREE CHAMPIONSHIPS

With me competing in both big championships means unfortunately I am only able to compete at enough rounds to count, which doesn't allow me any dropped scores. Both the EWS and 1:12 nationals run single leg finals so this means I cannot afford any mistakes. Both series have started well which see me leading both, but to finish at the top I cannot afford a single error.

THE CHALLENGE OF THE ETS

Preparation has also start towards my first ETS campaign. Having attended a few rounds last year I plan to attend all rounds of the Euro Touringcar Series this season. The ETS series is regarded as the best championship you can compete at with a TC car and the events attract more drivers than the worlds and euros combined, which also means the quality of drivers is at the highest level. Round one takes place in Czech Republic and with the Xray factory located in Slovakia, it means we are able to test at the factory before heading to the event which should be a big help.

So that's all for now. With a busy winter ahead I look forward to the challenge of it and for sure I will keep you updated right here. ■

OLLY

NASCAR FANS UK 300

Birchfield Community Centre, Yeovil / 8 November 2015 / Open / RASCAR

RASCAR's third event saw a visit to the Yeo Valley and the Birchfield Community Centre in Yeovil, Somerset for the NASCAR Fans UK 300. A bumper turnout for the event saw the return of some familiar faces to the RASCAR series to resume battle once again.

The usual 150 lap sprint race saw problems straight off the bat for all the drivers, with the track being super slick and every driver struggling to keep the back-end of the car under control. This inevitably saw many spins, sliding cars and crashes as a result, all of which keeping "Mr RASCAR" on race control, very much on his toes. #77 Bob Harley was struggling with a wrongly calibrated speed control that meant getting reverse was impossible. As a result, Bob not being able to recover his car caused many cautions. #23 Adam Bath also had issues early on with the right front wheel locking itself, causing the car to steer right. Bit of a problem on a left handed track. After an incident packed 150 laps, the #46 of Ryan "Cole Trickle" Stuart, got his maiden RASCAR race win, having started fifth on the grid. But only just as the #34 of David Tomlinson was just four seconds behind at the flag on the same lap. And Chelle Snowden, making history in RASCAR had an excellent debut by being the first female racer to bag a podium in the series in third.

SHOOTOUT RACES

The results of the sprint race sets the line up for the first of three shootout races, where points accumulated by the drivers over the three races are used to set the grid for the feature race.

Once again, an action packed race with plenty of incidents, but the results were pretty much the same as the sprint, and a lights to flag victory over the 75 laps for the #46. The only difference between the results of the sprint race and the shootout race one was the missing #77. Bob Harley's bad luck continued with difficulty re-calibrating his speed control seeing him miss the race entirely.

Shootout race two saw the drivers line up in reverse order of where they finished race one. With Bob Harley's



Backed up behind the official RASCAR pace car

#77 still unwell in the paddock, RASCAR Rental driver Joseph Alford in the #01 started on pole, with #23 of Adam Bath sharing the front row. But a loose wheel would see his early demise from the race. The #46 starting at the back will have his work cut out to do three straight wins. However, the cream always rises to the top, and despite starting on the back row, the #46 came through all the action to finish second. David Tomlinson in the #34, the Team BomberSports 350 winner took his first race win of the day, coming through from dead last to take the flag. Lee Owen in the #55 was finally starting to get used to the handling of his car to finish a well-deserved third.

The third and final shootout once

again sees the results of the previous race turned on their head. With Bob Harley getting his car boded together, the #77 would start on the pole with the #01 of Joseph Alford making his third front row start of the day. The form guys of the day so far would start at the back. Once again, grip was a key talking point and many incidents once again saw an action packed race. Lee Owen finally got a win, followed home by the #34 and another podium for Chelle in the #24. Car failure saw a pit stop for the dominant #46, but Ryan would make it back out to finish sixth. Bob's bodge job obviously worked, seeing him take a fourth place finish. This would be crucial in sorting the grid for the feature race.

THE FEATURE RACE

The 300-lap feature race carried on in the pattern of all the other races with action all over. A return of the loose wheel issue for the RASCAR Rental driver, the #01 of Joseph Alford, saw him only complete two laps of the feature race – a lack of spares to repair the car properly being the issue. With Jason Mogg in the #13 struggling all day with the set-up of his car, an early collision saw a visit to the pits for repairs. Jason was to make it back out, but with the cars so close together so early on in the race, lots of time had already been lost. The same could be said for the #23, with that pesky right front causing issues again as in race one, forcing The Team Albi RC with GoodSign.co.uk entry into the pits.

The Club Racer section of Racer magazine is for everything that goes on in the UK to do with clubs, racing and events. We want to give all clubs and races the chance to get into print and we need your help to get the reports onto the pages of Racer.



The track bears the scars of many laps of racing



Close action from one of the races



The #46 belonging to Ryan 'Cole Trickle' Stuart



The #23 car belonging to Adam Bath

The pit window opened for the mandatory pit stops at lap 150, and all the drivers pitted simultaneously, with the exception of the #23 and #13 who stayed out in a desperate bid to take advantage of the clear track and make up lost ground.

The feature race would see two appearances of the RASCAR pace car, as the field was stopped to allow for track wall repairs. On the last restart with just ten to go, the #55 of Lee Owen, was in a tight battle with the #34 for the lead. But in true Harley style, took

a trip onto the pit wall, putting an end to his charge. So, for the second straight event, the #34 of David Tomlinson crossed the line ahead of the rest, with Lee making it home in second and Chelle Snowden in the #24, completing a very competitive and consistent day in third.

The last RASCAR event of the year, the Final 400, is to take place in Tewkesbury on the 13 December before a full championship starts next year. ■

ASTRO WARS 2015

Dublin Model Car Club / 7-8 November / Open / 1:10 off-road

On 7-8 November model car racers from across the country came together for Dublin Model Car Club's Astro Wars event. The Star Wars theme somehow got attached to it and before we knew it and people were saying stuff like "May the force be with you" and wearing Darth Vader masks. The venue was looking great with an interesting track layout that had two crossovers, and some rather slippery sections.

Saturday was qualifying and this took place over five rounds. It was close all day across all classes with

lots of drivers tied on points and separated only by their best times. Some were separated by just one second after six rounds so it goes to show how tight the racing is. There was plenty of messing in among the serious racing with various drivers thinking they were Darth Vader, and maybe The Force would help them win.

Sunday was a last round of qualifying and finals. Again, it came down to the wire in all classes. In 2WD modified Dylan and Denzell McBurney went into the last final

with the same points. Dylan was out in front, but Denzell's broken hub helped him cement the win. Alan Thompson was driving brilliantly and took a well-deserved third place.

In 2WD clubman, Graham Parkes took a hat trick of wins easily taking first overall. Maybe it's time for him to go modified? After a bad start Declan Brennan went up a

gear and gave Graham a run for his money to take second overall with some lovely driving.

In 4WD Dylan took the win, again fighting hard to stay in front of Michael Bolger. Ian Thompson drove well all day and third overall.

The mini off-road class had another outing at Astro Wars, with Alan Thompson taking the win. ■



The Dublin Model Car Club venue



The top three in the mini off-road category



The top three in 2WD clubman



The 4WD modified podium



The Astro Wars raffle winner



The podium in the 2WD modified class



The Astro Wars winners



The Astro Wars attracted a good and competitive entry



The event attracted a Star Wars theme!

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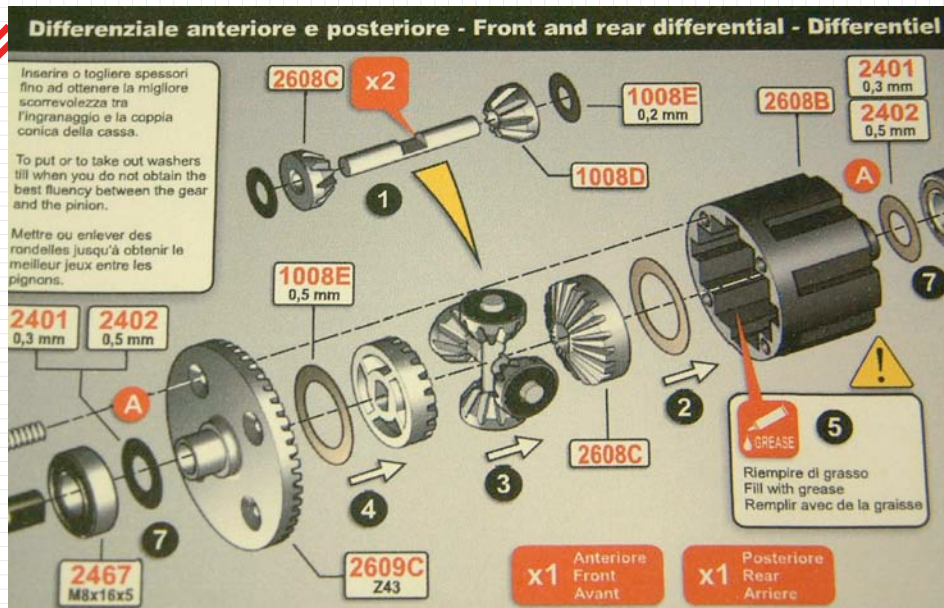
We can all be accused of being a bit lazy, but sometimes there is no excuse for cutting corners and looking for the easy way out as the Old Time Racer recently found out...

So the conversation went like this:
A Racer: "Can you help me please, my speedo has reverse and I need to turn it off?"
Old Time Racer: "Have you read the manual?"
AR: "There's a manual?"
OTR: "Yes it came in the box with the speedo."
AR: "Don't think mine had a manual."
OTR: "They all come with manuals."
AR: "Where will the manual be then?"
OTR: "In the box."
AR: "In this box?"
OTR: "Yes."
AR: "Oh you mean this piece of paper?"
OTR: "Yes."
AR: "I didn't read this."
OTR: "Really?"
AR: "So can you help me turn the reverse off then?"
OTR: "RTFM!"

This is usually followed by a request for information to anyone else that might be using the part to help them. Now I am always happy to help and yes I appreciate that some instructions are pretty shoddy, but in the main they are fairly simple and do not really take a lot of understanding even for an old codger like me so these young tech savvy kids should be able to understand them standing on their heads. So is this just laziness?

OLD HABITS

For me, and OK I suspect I may be odd in this, I always want to look at the instructions before I purchase something (provided they actually need instructions that is). Usually a copy can be found online that will explain in reasonable detail how to set it up, make changes and what parameters are available or not. This I feel is usually a good



Many manuals include descriptive and well as pictorial elements in their manuals. Note this one features multiple languages



KO Propo include a copy of the Esprit IV instruction manual on disc

move and in the past has stopped be spending money on something that is not as suitable as I thought from the advertising! Most of the kit we

use today is fairly simple and the manufacturers have done most of the hard work for you, just leaving you with a few simple steps to get the best from their offerings. There are a few that are maybe not so good, but not many. In all cases though, a thorough read of the manual/instructions is necessary if you want to get the best from your purchase. Familiarising yourself with the settings available and the trackside changes you can make could mean the difference between winning and losing. It takes a few minutes and is so worth it. So please read the flipping manual before asking for assistance!

It is Now!



ANSWERS TO WHO, WHAT, WHEN AND WHERE. P20

1. Batley hosted the fourth round of the 2002 BRCA 1:10 Off-Road National Championship and it saw two wins from title challenger Richard 'Tricky' Taylor. Driving his distinctive fire engine red LRP-powered Losi cars, Richard won 2WD and would lead the championship by four points in 2WD, and by taking his second victory in a row in 4WD saw his lead increased in 4WD over Neil Cragg to seven points. His position wasn't to be relinquished too as after the final two rounds he would end up adding to his championship tally by taking both titles in the 2002 series. **2.** One thing that RC won't ever miss is brushed motors and all the work required to keep them operating at pinnacle performance. And here is a classic example. This is the work area of Oscar Jansen from Team Orion who was looking after his team drivers at the 2005 European Championships for 1:10 off-road held in France. With a choice of timing, brush compound and spring tension, not forgetting turns and winds, we used to change the motor to tune performance. Nowadays with brushless we tend to program the speed control instead so there is much less reliance on having multiple motors in your pit box. And don't forget that the modern brushless motor can pretty much be used without any maintenance. **3.** Team Associated SC8 announced their huge 1:8-scale short course truck in 2008 based on those raced in the CORR series in the USA. Short course was dubbed the next big thing and we were pleased to see one of the RC giants dipping their toe in the new and emerging market. Sadly the 1:8-scale SC nitro-powered class was never to be as big as 1:10-scale electric, and with the SC8 in particular not helped by the hefty £579 price tag. As usual, Team Associated's SC8 was truly stunning with its Red Bull branded paint scheme and to say we had lots of fun with the truck would be a huge understatement!

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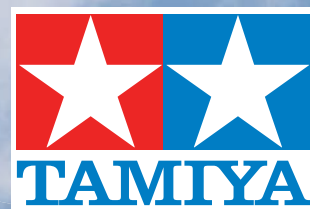
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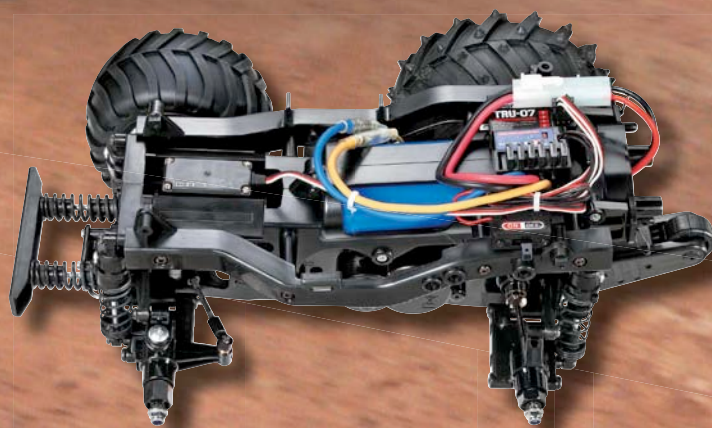


58611 WILLY'S WHEELER /HONDA CITY TURBO

This RC model is an updated release of a Tamiya classic, which was released as "Willy's Wheeler" back in 1983. It has returned upon a newly-overhauled variant of the WR-02 chassis. It is fitted with a Honda City Turbo body, which also includes a comical driver figure. The WR-02 chassis features a 2WD drive-train with fully independent double wishbone suspension.

Fun wheelie action with the rear-wheel drive WR-02C!

The rear wheel drive WR-02C chassis was made for rough riding! Shielded by side frames and held tightly in place by the monocoque frame, the fully-sealed gearbox is well-protected from impact. Power is provided to the rear wheels by a centrally-positioned motor, and transmitted via the differential in the gearbox. The location of the battery pack is key: its longitudinally-placed position high in the rear ensures that when the model accelerates, the front naturally rises in a wheelie. At that point, the wheelie bar on the model's rear stops the model from toppling over, and in doing so maintains a great wheelie! Steering servos are placed along the centre of the chassis, and they combine with the 2-piece tie rod for precision steering. The suspension is of the tough 4-wheel double-wishbone variety.



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